# Coins of Punic Sicily. Part I 

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## G. KENNETH JENKINS

## COINS OF PUNIC SICILY

## Part I *

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## Foreword

This article is designed as a first instalment to cover the major issues of Motya, Panormos and «Rashmelqart», together with related issues of Thermai and minor coins of other mints. It is hoped to complete the picture in further instalments dealing with the tetradrachm series of the Horse, Horse and palmtree and Horse's head types, which I refer to in the present article as the «Carthage» series and which, I believe represents the mint of Lilybaion (cf. p. 55). For the minor issues of the mints here treated, no attempt has been made to collect the full material, and these are given in summary form only, mainly on plates 23-24.

The initial collection of the material was made some years ago by E.S. G. Robinson, and my debt to him is immense, for without the work he had already done, it would hardly have been practicable to make a start. I have however been able to augment his material from further sources ${ }^{1}$. Dr. Robinson has also been kind enough to let me use his unpublished notes and to discuss many things with me, but of course I must take responsibility for the results, such as they are. I am also extremely grateful to Leo Mildenberg for the opportunity of publication in this form.

[^0]
## Punic legends

| $\mathrm{mtc} \mathrm{v}^{\prime}$ | p. 34 (nos. 26, 37-38, 43-45, 48, pl. 23, 4 b) |
| :---: | :---: |
| 'mtt | p. 34 (no.31) |
| hmṭ ${ }^{\prime}$ | p. 34 (nos. 39-4I) |
| s¢ y s | p. 38, 45 |
| šb'l sty | p. 38 (litra pl. 24, 12) |
| ršmlqrt | p. 61 (nos. I, 2, 4, 5, 6, 8, II, 2I, 26, $3 \mathrm{I}, 42,48,49,54,6 \mathrm{I}, 65,68$ ) |
| ršmlqrt (reversed) | p. 61 (no. 62) |
| r'smlqrt | p. 61 (nos. 12, 18, 23, 25, 69, 71) |
| 'g | p. 73 (no.73) |
| k | p. 73 (Solus ? pl. 22) |
| kfr , | p. 73 (Solus pl. 23, 16-18) |
| 'rk | p. 73 (Eryx pl. 24, 24) |

## Abbreviations

| AC | Ars Classica |
| :---: | :---: |
| Annali | Annali dell'Istituto Italiano di Numismatica |
| Arch. \& Trav. | Archaeologist and Traveller (Sotheby sale 20. I. I898) |
| Atti e Mem. | Atti e Memorie dell'Istituto Italiano di Numismatica |
| A-V | Armand-Valton (Paris) |
| BMQ | British Museum Quarterly |
| Contessa | Contessa hoard (Palermo) |
| Glend. | Glendining |
| H | de Hirsch (Brussels) |
| Hamb. | Hamburger |
| Hirsch | Jacob Hirsch sales (Munich) |
| Holm | Holm, Geschichte Siziliens III |
| I-B | Imhoof-Blumer, Zur Münzkunde Großgriechenlands, Siciliens, Kretas usw. (in NZ 1886) |
| Jenkins-Lewis | Carthaginian gold and electrum coins (London 1963) |
| JHS | Journal of Hellenic Studies |
| Kokalos | $\mathrm{K} \Omega \mathrm{KA} \Lambda \mathrm{O} \Sigma$ (studi pubblicati dall'Istituto di Storia Antica dell'Università di Palermo) |
| Lederer | Lederer, Die Tetradrachmenprägung von Segesta (Munich 1910) |
| McC | McClean (Cambridge) |
| Met. | Metropolitan Museum (New York) |
| MMAG | Münzen und Medaillen AG (Basel) |
| Nav. | Naville |
| Noe | Noe, Bibliography of Greek coin hoards |
| NSc | Notizie degli Scavi |
| NZ | Numismatische Zeitschrift |
| PCG | Guide to the Principal Coins of the Greeks (British Museum) |
| Rizzo | Rizzo, Monete greche della Sicilia antica |
| RPK | Richard Payne Knight collection (British Museum) |
| SC | Sambon-Canessa |
| Soth. | Sotheby |
| TRINC | Transactions of the International Numismatic Congress (London 1936) |
| Weber | L. Forrer, The Weber collection (London 1922) |
| WSM | Newell, Western Seleucid Mints |
| ZfN | Zeitschrift für Numismatik |

## Motya I and Panormos

## (Plates I-2)

The early series of both mints are here collected as fully as possible apart from the small coins (for which see plates 23-24). There are close connexions between the didrachm series of the two mints, both of which show considerable dependance on Segesta. When the corpus of Segesta coins in preparation becomes available, surer conclusions should be possible regarding the related Punic coinages.

Motya I begins ${ }^{2}$ with didrachms whose obverse is copied from those of Himera (Rizzo xxi 9) while the reverse is very close to the Segesta type Rizzo lxii 8 ; this reverse at Motya and Segesta depends on the Syracusan type Boehringer Reihe XXII (c. 440 by his chronology, but more probably c. 430) ${ }^{3}$, and may fairly be considered to begin in western Sicily c. 425 . From Motya no. 14 the Himerean obverse is replaced by a Segestan type, a dog with small female head above, such as occurs in a large group of Segestan coins (Rizzo lxi 17, SNG II 1 178, Luynes ini6-7, etc.), cf. Plate 2 A, B here; this Segestan group clearly precedes a later group of which samples are here illustrated on Plate 4 (A-F).

With the obverse of Segestan style (Motya no. 14 ff .) were used some reverses (rev. $6,7,8$ ) which had already appeared in the series of Motya, and also two other dies $R a a$ and $R b b$ which have the inscription ss $y$ s. $R$ aa and $R b b$ have heads of more or less current Segestan style, Raa being similar to Luynes iri6 (here Plate 2 B), while Rbb seems to be modelled on the style of Segesta Rizzo lxi 17. Apparently, Rbb was originally prepared for Segesta as traces of the Greek legend Segestazib remain alongside the Punic legend; I understand that this die has not, so far at least, been traced in its presumed original form. Rbb is further used (at $Z_{3}$ ) with a different obverse die (obv. 9) which in turn is coupled with a purely Segestan reverse (Plate 2, A).

Coins $Z_{1}$ and $Z_{3}$ of the above series were known to Imhoof-Blumer when in $1886{ }^{4}$ he expressed his scepticism as to whether the șys legend really corresponded to the place name of Panormos. Imhoof drew the conclusion that $Z_{\mathrm{I}}$, being die-linked to Motya, must be of that mint, whereas $Z_{3}$ must for similar reasons be of the Segesta mint. This conclusion formed his prime argument against the sy ṣ-Panormos equivalence. But it is clear that the question must now be viewed in another light,

[^1]since the discovery of $Z_{2}$ makes a direct link between $Z_{I}$ and $Z_{3}$ and thus forms an unbroken chain of die-linkages apparently beginning at Motya and ending at Segesta.

In order to explain even in principle how this can be so we are compelled to admit that somewhere along the line either one or more dies must have been transferred between the mints in question, or else that one mint was striking coins for the other. Both of these possibilities are well attested in the field of Greek coinage and some of the examples known were indeed mentioned by Imhoof himself in the article of 1886 - those of Hyria-Fensernia (Imhoof, taf. V, 7-8) and of the Cam-panians-Neapolis (ibid. taf. V, $16-17$ ). We may cite also Rhegion-Messana (Robinson, JHS i948, p. 20, no. 6 Rhegion and no. 32 Messana), Syracuse-Leontinoi (Boehringer Syrakus, taf. 30, A 3), Corinth-Ambracia (Ravel NNM 37, no. 8 and p. 83 ff.), Eleutherna-Hierapytna (Seltman, Greek Coins, pl. xxxvii, 9, ro; also mentioned by Imhoof, p. 283), Priansos-Phaistos (Milne, TRINC 1936, p. 90, no. 2). Other cases, from the Hellenistic period and later: Alexander, die-link between Sidon and Ake (Newell, Dated Alexander Coinage of Sidon and Ake, p. 53); the Seleucids, dietransfers between Abydus, Lampsacus, Ilium and Alexandria Troas (Newell WSM, p. 327 ff., esp. nos. 1548-9, 1555, 1557, 1560, 1563-4); a shared obverse between IIIc Alexanders of Priene and Miletus (Seyrig RN 1963, p.37-38); Achaean league, die-link between Elis and Patrae (Thompson NNM 159, p. 101); and innumerable dies shared between coins of different cities in Roman Asia minor, attesting centralised mintages, the subject of an important forthcoming work by the late K. Kraft.

The possibility of die-transference thus shows that, for the series of Motya - sys Segesta with which we are here concerned, it would be difficult to derive any decisive proof, from the evidence of the die-linkages alone, as to the place of mintage of the specimens $Z_{1,2,3}$. In fact the style, and the remains of the Segestan legend on Rbb , are factors which would agree well enough with the hypothesis that these ss ṣ dies were made by a Segestan engraver. But if so, it hardly seems plausible to think that the coins with the Punic legend ssys were made for use at Segesta, since it was not a Punic city. As for Motya, the other city involved in the series, we know that its Punic name mtv ' appeared shortly afterwards (in series II) so that it is most improbable that coins marked s sys should have have been intended for Motya either. In brief, it seems to me that the die-links which we have between the coins of Motya and Segesta, with the ss s specimens Z 1, 2, 3, do not after all in any way preclude the possibility that the latter were minted at or for Panormos and that ssys can best be interpreted as the Punic name of that city.

The hypothesis that the word s $\mathrm{y} s$ is not a place-name is in any case quite gratuitous, especially as no other convincing explanation of it has been offered ${ }^{5}$. We are left with the only positive evidence for the meaning of $s \mathrm{y} s \mathrm{in}$ in shape of the small bilingual litrai bearing this Punic legend on the obverse and the Greek ПANOPMO $\Sigma$

[^2]on the reverse (Plate 2 Y ). From these, it seems to me beyond reasonable doubt that the Punic legend must be the equivalent of the Greek, in precisely the same way that we have Punic and Greek legends combined on coins of Solus (Plate 23, 18). It is also important to note that these bilingual litrai are by their epigraphy intimately connected with the didrachms $\mathrm{Z}_{\mathrm{I}}, 2,3$ : the rendering of the letter forms is almost identical on the didrachms and on the litrai Plate $2 \mathrm{X}, \mathrm{Y}$; and moreover it is a rendering of $s \mathrm{y} s$ which does not otherwise occur. From the table of legends (p.38) it will be seen that only here does the letter ṣade have this shape, whether written in the normal direction or, as on the didrachm $\mathrm{Z}_{2}$, reversed. This epigraphic feature strongly reinforces not only the connexion between the didrachms and the litrai, which are thus presumably contemporary and quite probably by the same hand, but also strengthens the conclusion that both denominations must pertain to Panormos irrespective of whether the didrachm dies were made by Segestan engravers as suggested above.

From the foregoing discussion of the die-linked series of the didrachms $\mathrm{Z}_{\mathrm{I}}, 2,3$ and their connexions with the Motya I series and Segesta, and the perfectly feasible explanation that dies can have been transferred between mints, it will be seen that Imhoof-Blumer's main argument against the identification of s.yṣ as Panormos is invalidated. His other arguments are in any case less significant, being concerned with the possibility that certain other coins with the ṣs legend might belong to (a) Eryx and (b) to Solus or Thermai. For Eryx, it is merely a case of a stylistic similarity between some ssy didrachms (our Panormos nos. 9-10) and didrachms of Eryx (of which Imhoof gives as example a specimen similar to SNG II 942, cf. Rizzo lxiv 8,9$)^{6}$ : in view of the many such similarities between the different mints of western Sicily, of which others will be noted below, this argument cannot be given very much weight, and the same kind of argument from the similarity of the Eryx litra (Plate 24, 24) to that of the sys ṣint (Plate 24, 12) would be no more cogent.

In the case of Solus or Thermai, to which Imhoof (p. 266 ff. and p. 246 respectively) suggests the attribution of the «cock» coins with ssy ṣ (drachm, here Plate 6 A, bronze Plate 24, 18), I have tried to discuss the question elsewhere ${ }^{7}$ in connexion with the coinage of Himera. It turns on whether a specimen of the «cock» bronze could, as Imhoof suggested, be read kfra instead of $s \mathrm{y}$ ṣ; the evidence cited by Imhoof (p. 248) from Landolina is not satisfactory, and so far as I know nothing has turned up to confirm it. Neither here nor in the case of Eryx can I see that there are any arguments which can stand up against the clear sys = Panormos equivalence already mentioned.

At this point it may be worth looking briefly at one other line of argument which has been adduced in the attempt to explain away sys $=$ Panormos. This was the argument of Lloyd in NC 1925, 129 ff ., based on the diversity of types, original to a

[^3]number of different Greek mints, which in fact occur in association with the sys legend. It is obvious that the ss s tetradrachms (here Plates $7-14$ ) comprise many types of Syracuse, although no one would try to assign them to that mint. Among the other s y ṣ coins we have recollections of Gela (the man-faced bull, Plate 24, 2, 8, 11-16), of Syracuse (female heads, Plate 24, 3, 4), of Messana and Akragas respectively (dolphin/eagle, Plate 24,9), of Kamarina (Athena/swan, Plate 24, 10), possibly of Thermai (Hera/manfaced bull, Plate 24, 20, cf. Plate 22 A), and of Himera («cock» Plate 6 A and Plate 24, 17; goat-rider, Plate 24, 5, $6=$ Plate $2 \mathrm{X}, \mathrm{Y})^{8}$. To believe, as Lloyd apparently did, that these sys coins were really minted at all the various cities in question, under Punic domination, would really be very difficult indeed - especially when we already know from sure examples that the explanation is very simple, that the Punic mints were very prone to imitate the types of the Greek mints, and indeed did so for most of their coins. Thus we have Greek-inscribed tetradrachms and didrachms of Panormos with types of Syracuse, Katana/Leontinoi, Segesta and Selinus (Plates 6-7); coins of Eryx using the types of Segesta, Selinus, Akragas and Himera ${ }^{9}$; and coins of Motya using the types of Himera and Segesta (here Plates I-4), Akragas and Syracuse (Plate 5), a small coin, similar to the s y ṣ Plate 24, 9, suggesting Messana and Akragas (here Plate 23, 1), while the Gorgon of Plate 23, 4, 58 may or may not owe something to the bronze coinage of Camarina.

At least it is clear that in numerous cases whose mints are determined there is a large repertoire of types culled from various Greek mints. Against this background it can hardly be argued that the diversity of types used with the ssyṣ legend can show anything, except that the s s s mint too was very fond of such imitations. It certainly does not prove what Lloyd thought it did.

Finally, the etymology of the word ssys in itself could hardly help to determine whether it is or is not a place name; it is generally admitted that the root of the word means «shining», but it seems - at least to a non-semitologist like myself - very far fetched indeed to extend the meaning to «shining metal» and so to «metal plate» and «mint». This last is exemplified by the explanation given by Honeyman ${ }^{10}$ of the legend šb'l ṣyṣ, which occurs on some small coins (here Plate 24, 13), and which he translates «masters of the mint». It seems clear that this legend must be analogous to those of similar form which are found at Tarsus ( $\mathrm{b}^{\prime} 1 \mathrm{trz}$ ), Gaziura ( $\mathrm{b}^{\prime} 1 \mathrm{gzwr}$ ),

[^4]Gades (mb'l 'gdr), Sexsi (mb'l sks), Lix (mb'l lkš), and Tingis (mb'l tyng') ${ }^{11}$. In all of these we have the place-name, and thus also in the legend šb ' 1 ṣys the element ṣy s must designate the name of the city.

Summarising this discussion, I would say that it seems to me that an entirely unnecessary amount of mystery has been allowed to surround the whole question of the ṣys legend. The only clear evidence we have equates it with Panormos, and I think that neither arguments derived from the die-linkages, nor from the types, nor from the etymology, are in the least convincing as indications to the contrary. It seems to me that the interpretation of stys as the Punic name of Panormos is eminently recommendable and should be accepted.

## Motya II-III and Panormos

(Plates 3-6)

The period covered by this section is probably $415 / 410-397$ B.C. the latter terminus being provided by the destruction of Motya by Dionysios. The general influence of Segesta is still paramount for the didrachm coinage as both Segesta itself and the other mints move on to a new style. At Segesta there are the new types of the dog with stag's head (Plate 4 C, F), imitated at Motya, and the dog with corn ears (Plate $4 \mathrm{~A}, \mathrm{~B}, \mathrm{D}, \mathrm{E}$ ) which however was not imitated at the Punic mints but only at Eryx.

The didrachms of Motya II go through two phases, a Greek issue (nos. 18-25) followed by a Punic issue (nos. 26-36). After these comes Motya III (Plate 5) consisting of Akragantine type tetradrachms, followed by a second series of tetradrachms and didrachms with Syracusan heads copied from Kimon's decadrachms and facing Arethusa; clearly this group must finish by 397 B.C. Working back from this it seems likely that Motya II should come before 405 and may thus be dated c. 415/410-405, leaving 405-397 for Motya III.

Motya didrachms of the Greek phase (nos. 18-25) show some close analogies with Segesta, e.g. no. 20 with the litra Plate 4 F and no. 22 with Plate 4 A. Then in the Punic phases at Motya we see the influence of the new Segestan prototype Plate 4 C, D, which with its very characteristic tall head, either with or without an ivy leaf in the field, remains dominant in Motya nos. 26-36.

[^5]The date of the group of Segesta coins represented by Plate 4 A-F remains to be determined closely, but it is necessary for the moment to form at least some preliminary view. Much depends in any case on the date we assign to Plate 4 E , with the dog and corn-ears obverse and the reverse head in sphendone which is the same die used on a Segestan tetradrachm (Lederer 7). On Lederer's chronology this tetradrachm would be c. 416 B.C.; but by analogy with Syracusan styles the other tetradrachms linked with it (Lederer 5,6) would be much more likely to be after 410 B.C. Also I can see no cogency in Lederer's argument that the Segesta mint must have closed in $409{ }^{12}$. It seems to me that these tetradrachms can well be placed in the final decade of the fifth century, so that the didrachm Plate 4 E should be of the same time, perhaps 405-400, a dating that is in any case necessary for this didrachm on account of the Pennisi specimen, itself overstruck on a didrachm of Camarina which is probably not long before $405{ }^{13}$. Naturally it is possible to envisage that the Segestan group represented here by Plate $4 \mathrm{~A}-\mathrm{F}$ may extend from e.g. 415-400 B.C., but for the present purpose it is neither possible nor necessary to try to be more precise. For the Motya II didrachms, Greek and Punic, nos. 18-36, we can well suppose 415/410-c.405, still leaving room for the succeeding Motya III issues at c. 405 (nos. 37-44) and c. 400 (nos. $45-$ 50) respectively.

There are three varieties of the Punic legend; 'mtv (as no. 26), mtv' (as no. 33, etc.) and hmtv' (as no.39). In the case of hmtv' at no. 39 the first letter is added in the die of no. 38 which has only $\mathrm{mtv}^{\prime}$. The variations are mentioned by Sola Sole in Seferad 27, 1967, pp. 19-20, note 25, and the parallel variations at Gades (hgdr/ ' gdr ) are noted by him. The form of the legend at no. 44 is rather uncertain, depending on a single specimen of which I have not seen the original.

The Panormos didrachms of the present period are fewer in number than those of Motya and almost all have the Greek legend; the only exceptions being nos. 9-10. No. I stands rather apart from the rest, and seems to correspond to the previous stylistic phase of Segesta as Plate 2 B, though whether no. I is really before or after the ṣy didrachms Z I, 2, 3 which have been discussed above, is hard to determine. With no. 2 however we have a piece which is extremely close in style to Motya no. 20 and surely by the same hand - if indeed it is not really one and the same die with some small alterations, thought it is impossible to be sure of this. In any case Panormos no. 2 and Motya no. 20 must fall in the same period which can be roughly defined as c. 415-410. The engraver of both is likely enough to have been a Segestan, and the author of the Segesta litra Plate 4 F. Panormos no. 5 seems a weak imitation of this type. With regard to the crayfish behind the head, it would be impracticable to

[^6]try to associate it with the similar symbol which appears below on tetradrachm no. 23 (Plate 9) which must be after 400 B.C.

Panormos no. 3 shows a head derived from the Segestan «tall head» (Plate 4 C-D), and no. 6 has the ivy leaf: but otherwise there is no great dependance on the new Segestan styles, and there is no copy here, as at Motya, of the dog with stag's head obverse type. Panormos no. 8 has on the obverse a shell above the dog which recurs on the Punic coin no. 9 . No. 8 still has a Greek legend, but with it a swastika symbol which later is echoed on a tetradrachm, no. 70 (Plate 13) and a litra (Plate 24, I3).

It is difficult to be sure how precisely the Punic didrachms fit in with the tetradrachm series, but presumably nos. 9 , io, II belong roughly to the 410-390 phase. We cannot, however, easily suggest any firm date for didrachms nos. 12, 13; clearly they must find some place alongside the s.yṣ tetradrachms series but neither the style nor the epigraphy (the precise letter forms are not clear enough to include in our drawings) give much help, and the free horse type has its analogy both in the «Carthage»series before c. 380 B.C. and in the bronze coins of Panormos in the late fourth century.

To sum up the development of the Panormos mint so far: one would except coins in Greek to come generally before those in Punic but this is not apparently the straightforward criterion after all. The first issue may be the «cock» type (Plate 6 A and Plate 24, 18) which as I have suggested elsewhere could be of c. 430 B.C. ${ }^{14}$. Then there are the didrachms $\mathrm{Z}_{\mathrm{I}}, 2,3$ (Plate I-2) which have been discussed above and which must be before 415 B.C. since they belong to that phase of Segestan style and are die-linked with Motya I, so that they must precede the Greek didrachms of Panormos (Plate 6, r-8) which correspond to Motya II. No doubt the Greek didrachms of Panormos correspond also, to some extent, to the Greek phase of the Panormos tetradrachms (Plate 7, r-9) and the final change to Punic legend was probably made, as suggested below for the tetradrachms, at about 405 B.C. (below, p. 40).

## Note

In the catalogue sections, an asterisk * marks the specimen illustrated; where there is more than one, they appear on the plate in the same sequence as listed.

On the plates, the die-numbers are given, for simplicity, as plain numbers without the prefix O and R respectively.

[^7]Motya - Legends


4I

## 「10リン

キリロリ
fyロy
个YOH
K404

Plate 23， 4 b

Plates 1 －2
MOTYA I didrachms nos． $1-17$／PANORMOS Z $1,2,3$

Obv．Horseman（apobates）；
legend MOTVAION
Rev．Female head with dolphins．
I $\mathrm{O}_{\mathrm{I}}$
R I
8．59＊Berlin
8．19 Brussels H 502
2 O I＇Leaf added in ex．
R 2
－＊Syracuse
3 O I＂added above ex．line R 2

8．43＊Berlin
$4 \mathrm{O}_{2}$ No legend
R 3
8.65 ＊Paris Luynes 1041
$5 \mathrm{O}_{2}$
R 2
8．47 Copenhagen $478=$ Egger 46， 75
－＊Paris 86i
$6 \mathrm{O}_{3}$ Fish in ex． R 4
8.57 ＊London（Bank）$=$ Rizzo lxv． 7
8．55 Nav．5， 976
8.48 AC 16，58ı
$7 \quad \mathrm{O}_{4}$
R 5
8．23＊Hirsch 32，95＝Nav．5，977
$8 \quad \mathrm{O}_{4}$
R 6
8．10 Hamb．98， 20
8.03 Hess－Leu 1962， 75
－＊Priv．coll．Y
$9 \mathrm{O}_{5}$
R 6
8.24 ＊Woodward 72

8．07 Hirsch $30,378=$ Bunbury 240
Io 06 Pistrix in ex．
$\mathrm{R}_{7}$ Swastika in front of neck
8．67 Hess－Leu I956， 129
8．00 Berlin
8．30＊Palermo，NC 193 I pl．vi． 8

II $\mathrm{O}_{7}$
R 8

$$
8.36^{*} \text { Berlin }
$$

I2
$\mathrm{O}_{7}$
R 7 8.5I * London Lloyd 1135 (rev. worn)
8.02 Berlin (obv. worn)

- $\quad$ Landolina, IB vii. $\mathrm{I}=$ Rizzo lxv. 6
8.45 Walcher Molthein 482
8.42 Boston 299 = Warren 269
8.36 Weber 146I = AC 16.582
8.60 Jameson 665
${ }_{13} \quad \mathrm{O}_{7}$
R 4
8.02 * Berlin

Obv. Dog standing r.; small female head above.
No legend
Rev. Female head r., with or without dolphins.
$14 \quad \mathrm{O} 8$
R 6
8.23 * Egger 7. 1. 1908, 69
is 08
$\mathrm{R}_{7}$
8.12 Berlin
8.46 * Berlin = IB vii. 2 (rev. worn)
8.37 Copenhagen 479
$8.33^{*}$ SC 1907 Ciccio 233 (rev. much worn)

1608
R 8 No dolphins; corn grain
$8.57^{*}$ Copenhagen $480=$ IB vii. 3
$17 \quad \mathrm{O} 8$
R 9 No dolphins or corn grain.
8.60 * Egger 7. r. 1908, 65

Zı O8
Raa Segestan type head with dolphins
and Punic legend ṣy ṣ (p. 38)
8.49 * Berlin (Plate I)
8.44* Priv. coll. Y (Plate 2 above; enlargement of rev. below)

-     * IB vii. 4 (Plate 2)
$\mathrm{Z}_{2} \quad \mathrm{O} 8$
Rbb Similar head with dolphins and
Punic legend (reading left to right) (p. 38)
engraved over remains of Greek legend (Segesta) zib
8.32 * Oxford $2139=$ Hess-Leu 1964, 62
$\mathrm{Z}_{3} \mathrm{O} 9$
Rbb
8.41 * Paris Luynes $1076=$ IB vii. II

Plate 2 A-B Segesta, X-Y Panormos
A $\mathrm{O}_{9}$
Rcc Segestan head with Greek legend

* Berlin = IB vii. го

B Segesta, Paris Luynes ini6
X Panormos litra (BM) = Plate 24,5
Y Panormos litra (Hunter) =
Plate 24, 6

Plates 3-4
MOTYA II (didrachms nos. 18-36) / Segesta A-F

Obv. Dog standing r.
Rev. Female head r .
ı8 O io Corn grain above
R io Branch behind, legend
MOTVAION
8.10 * Copenhagen 476

19
O io
R II Traces of legend?
8.40 * Copenhagen 477
8.54 AC 16,609
8.02 Hirsch 15, 1104

20 O Io
R 12 Head with topknot, crayfish behind, legend MOTVAION
8.10 Paris Luynes 1042
8.20 London Lloyd $1134=$ Benson 241
8.08 Paris 859
8.20 Priv. coll. X
8.44 Hess-Leu 1962, 76
8.36 * Jameson 664

21 O if Plant below
RII
8.20 * London Lloyd II 33
7.93 Berlin

22 O II
R I3 Legend MOTVAION
8.57 AC I6, 583
8.72 * London BMC 4
7.98 Palermo NC 193 I vi, 9

23 O II
R I4 Cf. R in, possibly recut from it.
Legend?
8.02 * Cambridge McC 246I = Egger 7. I. 1908, 70
8.04 Berlin

24 O II
R 12
5.61 * Nav. 12, 787 (fourrée)
8.5 I Berlin
8.26 London BMC 3
7.36 Nav. I, 500

25 O II
R I5 Crayfish, legend (retrograde)
MOTVAION

-     * Pennisi

26 O 12 Dog standing, plant below
R I6 Ivy leaf, Punic legend mṭv,
$8.42^{*}$ London BMC 5
8.55 Paris Luynes IO46
8.60 Walcher Molthein 48I
8.37 Jameson $666=$ Hess-Leu 1956, 128
8.56 Berlin

27 O I3 Similar, but no plant
R 16
8.61 Oxford SNG $1858=$ SNG III $2503=$ Nav. 5, $972=$ AC 16,576
8.72 London (flaw on neck)
8.07 Paris 865
8.57 Leu Sicilia 68
8.3 I Berlin
8.75 * MMAG 43, 1970, 38

28
O I4 Dog with plant below
R 17 Ivy leaf, no legend
8.22 * Cambridge McC 2460

29 O Is Similar, but no plant
R i8 No leaf or legend
8.26 London
8.58 Priv. coll. X
8.5I * ANS

30 O I5
R I9 Similar
8.13 * London BMC Segesta 40
8.4I New York Met., Ward 230

3 I O 6 Dog with stag's head
R 20 Ivy leaf, Punic legend 'mṭv
$8.26^{*}$ London BMC 3
8.57 Oxford $1859=$ Egger, 46 , 74
8.42 Priv. coll. X
8.3I Weber I45I

32 O 16
R 2 I Similar to R 20
8.33 * Egger 7. I. 1908, 50
8.55 AC I6, 614
$33 \quad \mathrm{O}_{17} \quad$ Similar to O I6
R 22 Ivy leaf, no legend
8.57 * Berlin
$34 \quad$ O 17
R 23 As R 22
7.85 * Hirsch 33, 40I

35 O 18 As O $16-17$
R 22
8.20 * SC 1907 Ciccio, 258

36 O I8
R 24 Similar
$8.42{ }^{*}$ Hamburger 98, 290

Plate 4 A-F, Segesta
A London Lloyd II84
B London BMC 37
C London BMC 4 I
D London BMC 39
E London BMC 38
F London Lloyd II96

## Plate 5

MOTYA III (nos. 37-50)

Tetradrachms: obv. eagle; rev. crab
37 O I Legend mṭv,
R I

-     * Palermo
$38 \quad \mathrm{O}_{2}$ Legend mṭv'
R 2
17.1I * Paris
- Priv. coll. Y

39 O 2' Legend $\mathrm{hmṭv}$ ' ( h added in die) $\mathrm{R}_{3}$
17.16 * London BMC I

- Munich
$40 \quad \mathrm{O}_{2}$,
R 4 17.04 * New York Met., Ward 356
- Cefalú
$4 \mathrm{I} \quad \mathrm{O}_{3}$
R 4
17.20 * London Lloyd 1137
- Palermo, Contessa xvii, 16
$42 \quad \mathrm{O}_{3}$
R 5 Fish below
16.95 * Berlin $=$ Holm viii. 8
- Palermo, Contessa xvii, $15=$ Rizzo lxv, 8
17.16 Hirsch-Ciccio
$\mathrm{O}_{4}$ Legend mṭv'
R 6 Fish below
17.18 * London BMC 2

Didrachm: same types
44 O I
R I Legend mṭv,
$7.55^{*}$ 1907 Ciccio, 231

Tetradrachms: obv. Syracusan head; rev. crab
45 O 5 Head r., copied from Kimon's decadrachms, no dolphins, legend $m t v^{\prime}$
$\mathrm{R}_{7}$
15.89 Paris Luynes 1043

-     * Hirsch-Ciccio
17.16 Paris 863
- Palermo, Contessa xvii, $\mathrm{I}_{7}$

46 O 6 Head l., three dolphins, no legend R 8
16.38 London Lloyd Ir38 $=$ Nav. 6, 415 = SC 1907 Ciccio 236
15.57 Hunter xv, 5
16.74 Oxford $186 \mathrm{I}=$ SNG III $836=$ Nav. 4, 28 I
17.00 Hess-Leu 1956 I30
16.10 Hess-Leu $196457=$ Weber 1452
16.57 AC 16, 577
16.62 * AC 14, 99
16.41 Copenhagen 48I
$-\quad$ Palermo $=$ Rizzo lxv, 9

- Munich
17.52 MMAG 43, 1970, 40
$47 \quad 06$
R 9
16.32 Jameson 667
- Egger 26.11. 1909, 178
15.99 AC 17, 171
17.07 * London Montagu
17.12 Paris 865
- Palermo, Contessa xvii, I8
17.13 Berlin Löbbecke
16.28 Berlin Imhoof-Blumer

Didrachms: obv. facing Arethusa head, six dolphins; rev. crab, fish above, legend m ṭ $\mathrm{v}^{\text {' }}$
48 O I
R I
7.32 * $\begin{gathered}\text { London Lloyd } \mathrm{II} 39= \\ \text { Weber } \mathrm{I} 453\end{gathered}=$
8.30 Paris Luynes IO44
7.90 Palermo NC 1931 vi, 7

- $\quad$ Palermo $=$ Rizzo lxv, 10
7.83 Berlin
$49 \quad \mathrm{O}_{2}$
R I
8.13 Paris Luynes 1045
8.46 * London BMC 8
$50 \quad \mathrm{O}_{3}$
R I
_ * Priv. coll. Y

Motya, see also plate 23, I-14

Drachm, Plate 6 A

Didrachm, Z I

Didrachm, Z 2
Litra, Plate 2 X

Litra, Plate 2 Y

Didrachm, 9

Didrachm, 10

Didrachm, II-I2

Litra, Plate 24, 12

## Plate 6

Panormos didrachms

A Drachm: cocks ys / Crab and dolphin (3,91 g, Palermo $=$ Imhoof-Blumer, taf. VII, 14)
$Z_{2}$ Didrachm $=$ Plate 2, Z 2

Didrachms: obv. dog, rev. female head
I O I Dog snutfling, r.
R I Head l., legend retrograde
ПANOPMITIKON

- Six cast
8.24 Priv. coll. X
-     * Priv. coll. Y
- $\quad$ Pennisi $=$ Rizzo lxiv, 23
$2 \mathrm{O}_{2}$ Dog standing r., legend חANOPMOE
R 2 Head with topknot, r.; crayfish behind, no legend Cf. Motya 20 (same die altered?) 7.90 Weber $1474=$ LockerLampson 81
8.28 * MMAG 43, 1970, 42
$3 \mathrm{O}_{3} \quad \mathrm{AsO}_{2}$
$\mathrm{R}_{3}$ Head 1., no legend
8.5I Copenhagen 497
$8.47^{*}$ London Lloyd in62
7.96 Berlin = Hirmer 194
7.96 Oxford 1872
8.29 SC 1907 Ciccio 250
$4 \quad \mathrm{O}_{3}$
R 4 Head r., no legend
8.40 * London BMC 4 Pennisi
$5 \mathrm{O}_{3}$
$R_{5}$ Head r., crayfish behind
8.30 * London Lloyd i 163 = SC 1907 Ciccio 249
- $\quad$ Pennisi $=$ Rizzo lxiv, 22
8.32 London BMC 3
8.67 Paris Luynes 1075
7.29 Jameson 688
8.50 AC $17,180=$ Hess-Leu 196460
8.26 Palermo NC 193 I vi, 4
8.35 Strozzi 1350
$6 \mathrm{O}_{3}$
R 6 Head r., ivy leaf in front
8.62 * Jameson $687=$ MMAG43, 1970, 43
8.24 Palermo NC 1931 vi, 6

7 O 4 Wheel above, legend חANOPMO R 4
$8.36^{*}$ Palermo NC 193I vi, 5
8 O 5 Dog looks back, shell above
$\mathrm{R}_{7}$ Swastika behind, legend MANOPMITIKON retrograde 8.52 London BMC 2
$7.84^{*}$ Oxford $1872 \mathrm{a}=$ Jameson 692

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9 O 6 As O 5, but Punic legend ṣy ṣ
    R. 8
        \(8.00^{*}\) London BMC \(18=\mathrm{IB}\) vi,
                2 (Eryx)
    8.36 MMAG 43, 1970, 45
```

IO $\mathrm{O}_{7}$ Dog standing r., legend ṣ y ṣ below
R 9
8.27 * London BMC $19=1 \mathrm{Bi}$ vi,
3 (Eryx)
II $\mathrm{O}_{7}$
R io
7.80 * Hirsch 32, 97

Obv. Horse prancing r.; above Punic legend ṣ ṣ
Rev. Male head r. with dolphins.
12 Oi
R I
8.32 Jameson 693
7.65 Egger 45, 323
8.6I London Lloyd 1589
8.08 * London BMC 20
8.35 Nav. 13, 241
7.70 Nav. 13, 242 = Walcher Molthein 427
8.37 Nav. 4, 291

13 O I
R 2
7.64 Cambridge McC 2489
8.12 Hamb. 29. 5. 1929
8.45 MMAG 43, 1970, 52
$8.77^{*}$ Vienna

## Panormos tetradrachms

I-Io (Plate 7)

This first group has already been discussed by Kraay in Schweizer Münzblätter $5 \mathrm{I} / 54,1964,6 \mathrm{ff} .{ }^{15}$, and to his material there are two significant additions to make. First, no. 3, where the standing river-god of Selinuntine type is accompanied by a ram instead of a bull; the precise interpretation of this must remain speculative though it inevitably recalls the Zeus Ammon with ram on the gold coins of Cyrene ${ }^{16}$. A ram alone occurs on later bronzes of Panormos ${ }^{17}$. The female head of no. 4 is copied from Syracuse, apparently from the type of Boehringer Reihe XVIII; while that of a newly-discovered specimen no.4 A (p. 44, fig,) is clearly modelled the Syracusan type with the sakkos Boehringer Reihe XX. Next come nos. $5-6$ with an Apollo head of the Leontinoi-Katana type; and finally nos. 7-10 are copied from Syracusan coins by Eumenes, complete with the Syracusan legend and even the signature of the engraver. The addition of the Punic legend ṣys to obverse die 2 (no. io) forms a further element in the evidence for this legend; the obverse die in question is also used with reverses inscribed Panormitikon (Plate 7, 5-6). So far as this goes, it tends to reinforce our previous discussion (p. 29-3I above).

Kraay places no. io at 410 B.C.; it may have to be a little later in view of the dating necessary for the following group (see below) which seems to continue closely from the Eumenes style of the present group.
II-2I (Plate 8)

In this group there are two obverse dies $\mathrm{O}_{3}$ and $\mathrm{O}_{4}$ linked by $\mathrm{R}_{13}$. The «Eumenes» style and the arrangement of dolphins as seen in R io (no. II) forms a natural continuation to the reverse dies of the previous group. Important for the chronology are two reverses copied from Syracusan coins of the period after 412 B.C.: $\mathrm{R}_{13}$ is based on a head by Eukleidas, Tudeer reverse 35 with sphendone and fivefold earring, and R 14 is clearly derived from Tudeer reverse 38 with the topknot. The last-mentioned Syracusan coin must be of c. 410-405, so that as the Punic imitation cannot be earlier it seems most feasible to start the present group at c. 405 at earliest; this may indicate that the previous group (nos. I-IO) should finish a little later than 410, where Kraay placed no. io with the first Punic legend. The remaining

[^8]reverses seem to show a further adaptation of the «Eumenes» style but without close Syracusan parallels. The direction of the sequence is indicated by the absence of the shell in the exergue of $\mathrm{O}_{4}$ (no. 16) though it is present on $\mathrm{O}_{4}$ (nos. 17-2r). It is noteworthy that the dolphin above the head is replaced by a fish on $\mathrm{R}_{17}$ and $\mathrm{R}_{19}$ (nos. 19 and 2 I respectively).

## 22-24 (Plate 9)

This short group contains only one obverse die $\mathrm{O}_{5}$ which is I think basically the same at no. 22 and at nos. $23-24$; though if so there are numerous alterations, the most important of which is the addition of the column suggested by the Catana die Rizzo xiv 6 . The single surviving specimen of no. 22 does not permit any certainity as to whether the crayfish was already present in the exergue. The reverse of no. 22 links by its style to the reverses of the previous group. R 21 however (no. 23) is an original head not closely copied from any obvious Greek prototype, though the hair flowing out behind recalls the head by IM at Syracuse (Tudeer, rev. 45). The epigraphic form of the legend, nowhere completely preserved, is interesting and unusual. Most original is the way in which the dolphin looking out below the neck is for some reason transformed into a corn grain at no. 24; the addition of corn grains can be seen again at nos. 43 and 5I, and often at the Ršmlqrt mint. A newly-discovered specimen. no. 24 A (p. 44, fig.) combining obverse $\mathrm{O}_{5}$ with reverse R 22 (of no. 25) creates a direct link with the following group and satisfactorily confirms the sequence already adopted.
25-43 (Plates 9-10)

This group contains three obverses, of which O 6 is linked to $\mathrm{O}_{7}$ by $\mathrm{R}_{23}$, and $\mathrm{O}_{7}$ to O 8 by R 27. O 6 has no legend, though this is supplied by the reverse, and instead of the normal exergual line there is a maeander pattern. R 22 (no. 25) is a clear copy from the late Eukleidas head with floating hair (Tudeer R 60 , etc.), with the addition of a bunch of corn ears behind and the legend sys in front between the dolphins. The style of the next reverses, $\mathrm{R} 23-27$, is interesting as apparently a free adaptation from the type of Kimon's decadrachms, with a triple-drop earring but without a hair net, and emphasising the characteristic curls on the top of the head. The result admittedly seems remote from Kimon, whereas the final reverses of this group, $\mathrm{R} 28-29$ are in fact closely copied from the Kimonian types. On the obverses $\mathrm{O}_{7}$ and O 8 the legend is accompanied by a hippocamp which does not come direct from any Greek prototype, though it could conceivably have been suggested by the ketos on the last Himera coin, Rizzo xxi 23, or by the earlier Syracuse ketos.

This group is well represented in the Contessa hoard, buried c. 390-380 B.C. and in the very similar Vito Superiore hoard of similar date ${ }^{18}$; this gives a satisfactory

[^9]terminus for the series so far examined. The Ognina hoard, buried perhaps a little earlier, apparently contained a specimen of no. 21 from the previous group (by the reference given in Atti e Mem. 5, 1925, p. 18, «Hill Sicily x, 10») but this cannot be confirmed ${ }^{19}$.

## 35-4I (Plate Io)

Here there are three obverses, of which the first two $\mathrm{O}_{9}$ and O то are linked by $\mathrm{R}_{30} \mathrm{O}_{\text {II }}$, the only die of this group on which the legend sys occurs, is not dielinked with the rest of the group, but the close resemblance between R 33 (no. 39) and R 34 (no. 40) seems to me to establish a sufficiently reliable connexion. $\mathrm{O}_{9}$ and О го have no legend but symbols, ketos and swan respectively. On account of the swan, Lederer (ZfN 1924, 284) wished to assign this group of coins to the mint of Camarina. But $\mathrm{O}_{9}$ and $\mathrm{O}_{\text {ro }}$ must nevertheless belong to a Punic mint, as is evident from the addition of a Tanit symbol to O iо (no.39), and as has been said the connexion with the ssys coin (no. 40) seems adequately indicated. The style of the reverses in this group is extremely «Greek»; but as so often it is difficult to point to any precise model, though R 33 (no.39) seems to me to recall strongly the style of Phrygillos at Syracuse (Tudeer, obv. 16) but without the sphendone which is however present on R 35 (no.41). There is no direct indication of the chronology of this group as none of the specimens have appeared in any hoard. However there may well have been a gap after the previous group, and a reasonable date might be c. 370-360.
42-5I (Plate II)

Here there are only two obverse dies of which the first, $\mathrm{O}_{12}$, is exceptional for depicting a standing or walking quadriga. It is linked to $\mathrm{O}_{13}$ by means of $\mathrm{R}_{37}$ and R 39; and in fact both these obverses may have been in use at once, as the sequence contains some contradictory indications (see catalogue at no.49). The dolphin in the exergue of $\mathrm{O}_{13}$ is picked up again by $\mathrm{O}_{14}$ of the next group. $\mathrm{R}_{3} 6$, to which a corn grain is added (no.43), seems to be a distant derivative of the Kimon style, but perhaps we may also see some affinity to a style present in the Carthage series (e.g. McClean 3035) which should be of the mid-fourth century. R 37 may be regarded as a rather strange copy from the late Eukleidas style already used more recognisably at no. 25 above, and it undergoes some peculiar alterations (see catalogue nos. 45, 46). R 38, 39, 40 also seem to be remote descendants of the Kimonian style, also having some relation to a Carthage style (e.g. SNG II 1625) which may be rather after the mid-century. R 40 has a prominent corn grain.

The resemblances to Carthage styles noted here should give us at least a rough indication for chronology, showing that this group belongs at about the middle or

[^10]even third quarter of the fourth century. This is to some extent confirmed by the presence of two specimens of this group (nos. 43, 50) in the Megara Hyblaea hoard of 1949, probably buried, as Vallet-Villard rightly suggest, «vers la fin du $3^{e}$ quart» ${ }^{20}$. The hoard specimen of no. 43 is quite worn however, and the coins of this group need not be quite so late as the hoard limit suggests. Perhaps c. 360-340 might be a reasonable approximation, though probably too wide a bracket.

## 52-56 (Plate I2)

The two obverses $\mathrm{O}_{14}$ and $\mathrm{O}_{15}$ are not directly linked but the homogeneous style of all the reverses attests that the group must be placed together. The dolphin of $\mathrm{O}_{1} 4$ seems to link back to the dolphin of $\mathrm{O}_{13}$ in the previous group. Little can be said of the style of the reverses; it has no very obvious derivation, and a certain likeness to such a Carthage style as that of e.g. SNG II 1638 may well be misleading, as the latter can hardly be before the last quarter of the century. A style similar to our R 41-45 continues into the next group at nos. 57-58.

## 57-68 (Plates 12-13)

In this group there are three obverses $\mathrm{O}_{16} 6 \mathrm{-} 8$. $\mathrm{O}_{16}$ has at first two dolphins alone (no. 57) and then at no. 58 two dolphins with the legend ssy added; it is linked to $\mathrm{O}_{17}$ by $\mathrm{R}_{49}$, in the latest of that die's transformations. Whether $\mathrm{O}_{17}$ is directly linked to $\mathrm{O}_{18}$ depends on whether $\mathrm{R}_{53}$ and $\mathrm{R}_{54}$ are basically the same die or not. In this group the style of Euainetos first makes its appearance, as it does in the Carthage series only during the third quarter of the century. It is interesting to observe that one of the first dies of this style, R 49, is remodelled once to make a more plausible imitation of Euainetos (no.6r) and then remodelled again (no.62). No. 63 however gives a very authentic and Greek version of the Euainetos decadrachm style (based in this case on the issue with the dot as Gallatin J III, etc.), and no. 68 another version based on the issue with the shell, Gallatin E I, etc. but with the shell transferred from behind the head to below the chin. This latter occurs also in the Carthage series e.g. MMAG 43, 1970, 23 (with the horse rev.) and SNG III ro5I (with horse's head rev.) at a point which should be c. 325-320. Probably then the present group of s sys should be of comparable date, and we may suggest as the limits c. 340320 B.C. ${ }^{21}$. The regular style of the obverses $\mathrm{O}_{17}$ and $\mathrm{O}_{18}$ is equally due to the influence of the Euainetos prototype and leads on to that of the next groups ${ }^{22}$.

[^11]This group comprises a single obverse die whose style is anticipated by that of the preceding dies. The star in the field above, which reappears on $\mathrm{O}_{20}$, does not seem to be copied from any Greek prototype. Of the reverses, R 56 and 57 (nos. 69-70) are of the pure Euainetos style already found at nos. 63 and $68 ; R_{5} 6$ with the pellet recalls R 50 (no.63) and its Greek model, whereas R 57 has a swastika below the chin recalling earlier didrachms of Motya (no. ro) and Panormos (no. 8), as well as a s ys litra (Plate 24, 13). The relative condition of O I9 seems to show that after these coins of pure Greek style there comes a group of dies in a later and harder style, R 58-6I (nos. 71-74). This style has some affinity, though distant, with such dies in the Carthage series as SNG II 1635, 1632 , which should be of the last quarter of the century. A related style is found in some of the s.ys bronze as Plate 24, 19 .
75-82 (Plate 14)

The two obverse dies of this group are not linked, but the reverses of the group are very homogeneous. $\mathrm{O}_{20}$ has the same star above the quadriga as O i9 of the previous group; it also has the legend flanked by dolphins in the exergue, and this serves as a further connexion to $\mathrm{O}_{21}$, which however lacks the star. The style of the reverses is clearly late as it recalls very intimately that of the quadriga with triskelis tetradrachms of Agathokles of Syracuse (e.g. Kraay-Hirmer I34). This comparison must serve as the only evidence for the date of this group, since none of the coins is represented in any hoard.

## 83 (Plate I4)

This single specimen is not easy to place accurately in the series, as some of the details are not clear. The style of the head resembles that of R 58 (no. 71), but the weight is low and it may be an irregular issue.


## Catalogue: Panormos tetradrachms

(On

## Plate 7

I O I Galloping quadriga 1., dolphin above; dog in ex.
R I River-god sacrificing at altar, as on coins of Selinus; behind, bull and palm-tree. Legend ПANOPMOE $16.94{ }^{*}$ Nav. 4, 285
2 OI
R 2 Similar
16.90 * Bordonaro $=$ NC 1931 vi, $\mathrm{I}=$ Rizzo lxiv, 25
3 O I
R 3 Similar, but instead of bull, ram standing in $3 / 4$ facing position. $17.26^{*}$ Priv. coll. Y
4 O I
R4 Female head r. with hair in topknot; four dolphins.
ПиNOPMITON
16.53 Hirsch 18, 2262
16.7 I Palermo $=$ Hirsch 19, $216=$ NC 193 I vi, 3
16.10 * MMAG 43, 1970, 41
$5 \mathrm{O}_{2}$ Walking quadriga r., Nike above
R 5 Head of Apollo r., legend
IIANORMIT
17.14 * Paris Luynes 1074
$6 \quad \mathrm{O}_{2}$
R 6 Same, but ПANORMITIKON
(retrograde)
17.18 * London BMC I
17.10 Palermo $=$ NC 1931 vi, 2
$16.71 \quad$ Priv. coll. Y

- Pennisi
$7 \quad \mathrm{O}_{2}$
$\mathrm{R}_{7}$ Female head with rolled hair; dolphins; $\Sigma$ r'PAKOIION 16.70 * Cambridge McC 2678 16.14 Hamburger 98, 383 16.72 Oxford $2136=$ Hirsch 8, $984=$ Hirsch 14, $202=$ Jameson $787=$ Hess-Leu 1957, 107; also $=$ Tudeer $108 \mathrm{a}=$ Boehringer Syrakus, Taf. 29 B 13
$8 \quad \mathrm{O}_{2}$
R 8 Similar, but $O \Sigma I \Omega N M$ top 1. and EVMENOV below
16.97 Hirsch 19, $252=$ Tudeer 107a
16.53 * Jameson $1913=$ Hirsch 32, 298; also $=$ Tudeer ro7b $=$ Boehringer Syrakus, Taf. 19 B, 12
$9 \mathrm{O}_{2}{ }^{\prime}$ Same die somewhat recut
R 9 Similar, ampyx; OLION? above 17.18 * Nav. 4, 333

Io O 2" Same die; grain added in ex., Punic legend ṣy ṣadded above
R 9
17.01 Cambridge McC 248I
17.21 * London Lloyd 1579
16.91 Paris Luynes 1086

## Plate 8

II $\mathrm{O}_{3}$ Fast quadriga 1., with Nike above; in ex. Punic legend s y s
R io Head with ampyx, r., similar to R 9; no legend
17.17 Egger 45, 322
17.20 Hague
16.66 * Nav. 4, $287=$ do. 10 , $24 \mathrm{I}=$ Priv. coll. Y

- Pennisi
16.40 Reggio, Vito Superiore IIO
$12 \mathrm{O}_{3}$
RII
16.88 Egger 7. 1. 1908, 61 = Glend. xii 1963, 136
17.15 Hess 18.3.1918, $186=$ Helbing 1928, 124
17.15 * Hess-Leu 1966, 174
17.21 Paris 947
$13 \quad \mathrm{O}_{3}$
$\mathrm{R}_{12}$
16.50 Cambridge McC 2486
17.13 London BMC 7
16.83 * London Lloyd 1581 $=$ Nav. 6, 423
$14 \quad \mathrm{O}_{3}$
R13 Female head with sphendone and pendant earring; dolphins
16.90 Hague
- Berlin
17.20 * Priv. coll. Y = Hess-Leu 1960, 103
Is $\mathrm{O}_{4}$ Fresh state of die, but exergue off flan; therefore uncertain whether shell (cf. 17 below) present or not
RI3 - * Pennisi
$16 \quad \mathrm{O}_{4} \quad$ In ex. Punic legend ṣy y ; no shell
R 14 Head with topknot; dolphins 16.00 * London Lloyd 1582

17 O 4' Die now completed by addition of shell in ex.
R Is Similar to R Io, etc.

-     * Syracuse
$18 \quad \mathrm{O}_{4}$
R 16
16.90 Egger 7. I. 1908, 59
16.96 Lewis $=$ Hess-Leu 1962, 126
16.90 Lewis
17.00 * Nav. 4, $286=$ Hirsch 19 , 217
17.23 MMAG 43, 1970, 44
$19 \mathrm{O}_{4}$
R 17 Fish above instead of dolphin
17.16 * Paris 948
$16.95{ }^{*}$ Nav. 10, 242
17.15 London Lloyd $1580=$ Egger 45, 32 I
16.78 Priv. coll. X
$20 \mathrm{O}_{4}$,
R 18 Head of fifth dolphin appears
below neck
17.31 * New York Met., Ward 364
17.10 London $1949=$ Egger 7. I. 1908, 60
17.20 London 1938
17.03 Boston 323
17.71 Berlin
- Berlin
- Pennisi

O 4 ,
R I9 Fish above instead of dolphin
17.66 Cambridge SNG IV III7
17.57 Hirsch 33, $405=$ Ciani 1929, 57
17.45 Paris Luynes 1081
17.42 * London BMC $6=$ Hill Sicily x , IO
(2I) $\quad 17.28 \quad$ Rosenberg 72, $176=$ Cahn 71, $206=$ Cahn 80, III
17.23 Lewis

- Ognina hoard, Atti e Mem.

V, p. 18 «as BMC 6"

- Leu 1965


## Plate 9

22 O 5 Quadriga r.; in ex.: uncertain (off flan), see 23
R 20 Similar to previous dies 17.54 * Hirsch 32, 96

23 O s' Altered die, column on r., added. Crayfish in ex.
R 21 Head with hair fluttering behind; dolphins, one of which appears below neck. Top r., Punic legend sys.
$16.90^{*}$ London BMC 5
17.20 Benson $249=$ Sartiges $113=$ MMAG 43, 1970, 46
17.10 Hague
16.84 Paris 2390

24 O 5'
R 21 Altered die; corn grain replaces dolphin below
17.22 * Berlin

25 O 6 Quadriga 1.; maeander below
R 22 Head 1. with sphendone and fluttering hair above, spiral earring. Three dolphins in front, two corn ears behind. Top 1., Punic legend ṣy ṣ

-     * Palermo, Contessa 69, pl. xviii, $33=$ Rizzo lxv, 14
17.24 * Egger 7. 1. $1908=$ Sartiges $92=$ MMAG 43, 1970, 47
17.44 Jameson $1902=$ HessLeu 1957, 136
16.28 London Lloyd $1585=$ Hirsch 33, 475
26
06
R 23 Head 1. with ampyx, triple-drop earring; three dolphins 16.85 * Brussels
$27 \mathrm{O}_{7}$ Quadriga r., in ex. hippocamp and Punic legend ssy
R 23

| 16.98 | Paris 936 |
| :---: | :--- |
| - | Berlin |
| 17.10 | Jameson $689=$ Egger |
|  | 7. I. 1908, 55 |
| 16.62 | Cambridge SNG IV I118 |

$28 \quad \mathrm{O}_{7}$
R 24
17.16 * London BMC 8
17.07 Lewis
17.52 Egger 7.1. 1908, $56=$
17.73 Reggio, Vito Superiore 113
I6.76 MMAG 43, 1970, 48
$29 \quad \mathrm{O}_{7}$
R 25
17.35 * Oxford $2137=$ SNG III

845
16.84 ANS
17.53 New York Met., Ward $364 a=$ Late collector 112 $=$ Hamburger 1894, 157
17.44 Berlin

- Palermo Contessa 73, pl. xviii, 37
17.56 * Hess-Leu 1964, 61 = Hirsch 33, 406
17.68 Hirsch 33, 407
15.41 London $1939=$ Nav. 4, $289=$ Hess 15. 2. 1934,
${ }_{163}=$ Ratto 24.6.29, $140=$ SC 1927, 1142
16.17 Reggio, Vito Superiore III
$30 \quad \mathrm{O}_{7}$
R 26
16.89 * London Lloyd $1583=$ Egger 45, 319 = Nav. 6, 422
(30)

Plate 10
$3 \mathrm{I} \quad \mathrm{O}_{7}$
R 27

| 17.37 | Hirsch 13, $356=$ Collignon 149 |
| :---: | :---: |
| 17.25 | Egger 45, 320 |
| 17.67 | $\begin{aligned} & \text { Hirsch } 34,173=\text { Nav. } 4, \\ & 288 \end{aligned}$ |
| 18.04 | Egger 7. I. 1908, 57 <br> Sartiges II4 |
| 17.49 | Brussels |
| 17.82 | Hess-Leu 1958, II 2 |

O 8 Similar, but horses lower to ground line, ex. smaller. ṣ s
R 27
17.23 Hirsch 15, $1083=$ Arch. and Trav. I 12
16.82 London BMC 9
17.22 Paris Luynes 1083
16.78 Cambridge McC 2488
16.96 * Brussels H 826
17.04 Bunbury 529

- Palermo, Contessa 72, pl. xviii, 36 ( 5 specimens)
33 O 8
R 28 Head copied from Kimon first decadrachm; four dolphins
17.67 Berlin
17.07 Brussels H 825
16.97 Hirsch 19,219
16.89 Nav. 4, 290
16.60 * London Lioyd $1584=$ Nav. 6, 42I = Weber 1475
- Palermo, Contessa 70, pl. xviii, 34 (2 specimens)
17.4I Paris Luynes 1084
- Paris 938
17.21 Hess-Leu 1966, $173=$ Ratto 4.4. 1927, 385
- Silla, Alicante, Spain (A. Garcia y Bellido, Hispania Graeca, 1948, p. 226, 9)


## 34 O 8

R 29 Head copied from Kimon decadrachm, second type; three dolphins 17.14 * Jameson $690=$ Egger 7. 1. 1908, $54=$ MMAG 43, 1970, 49, from Giarre Riposto

- Palermo, Contessa 71, pl. xviii, 35

3509 Quadriga 1.; in ex. ketos
R 30 Head r., triple pendant earring; four dolphins
$17.92^{*}$ Hague
16.50 AC 14, $103=$ Nav. 12, 79
17.08 * AC $16,595=$ Nav. 5, $985=$ SNG III IO3I
16.92 Cambridge McC $2485=$ Benson 251
17.4 I London BMC Syracuse 215

36 O io Similar; in ex. swan with flapping wings
R 30
17.08 London BMC Syracuse 216
16.78 * Woodward $52=\mathrm{AC} 15$, 274

37 O іо
R 31 Similar head, but 1.; three dolphins
16.73 * London 1963, BMQ

1965, pl. xxii, 6

- $\quad$ Naples $5324=$ Rizzo lxv, 13
17.01 MMAG 43, 1970, 51

38
О 10
R 32
16.56 Jameson $731=$ MMAG 43, 1970, 50
17.05 * Munich

O ro' Sign of Tanit added in front of charioteer
R 33 Head with ampyx r., single-drop earring
16.5I Jameson $730=$ Hess-

Leu 1956, 135
16.9I Benson 250
16.95 * London $=$ Weber 1476

- Palermo
16.70 Berlin
17.16 Paris 96I
- Priv. coll. Y
- Llano de la Consolacion, Spain (J. Sanchez Jimenez
in Cronica del IV Congreso arqueologico del sudeste español, Elche 1948, p. 26Iff.)

40 O II Quadriga 1., double ex. line; Punic legend ṣs in ex.
R 34 Similar to R 33
17.10 Berlin
17.23 * Copenhagen 499

4I O II
R 35 Head r., with sphendone 16.60 * Egger 7. 1. 1908, 58

## Plate II

42 O 12 Walking quadriga 1.; Nike crowning horses. In ex. Punic legend ṣ y
R 36 Head l., four dolphins

- Berlin
-     * Berlin

43 O 12
R $36^{\prime}$ Corn grain added below
17.30 * Hague
16.10 Syracuse, Megara

Hyblaea hoard 1949, 55854

44 O I2
R 37 Head 1. with ampyx, short fluttering hair above; three dolphins
17.23 Priv. coll. $Y=$ Hess-Leu 1957, I37
17.04 * London $=$ Weber 1478

45 O 12
R 37' Die worn and altered as regards the hair, necklace and earring 16.46 * Paris Vogué 658

46 O I2
R 37" Die now further altered, especially as regards the hair and nose; dolphins unchanged 16.66 * London $1938=$ Nav. 5, 987

47 O I2 Die flaw below Nike
R 38 Head r., triple earring, four dolphins 16.54 * Cambridge McC 3054

48 O 12 Die flaw larger
R 39 Similar head r., triple earring, five dolphins

- ANS
17.15 Ratto 24.6.1929, 141 = Baranowsky IV, 343
17.28 * London $1908=$ Sambon I9. I2. I907, 495
17.04 Hess-Leu r956, r36
- Pennisi

49 O I3 Fast quadriga l., double ex. line; in ex., dolphin and Punic legend ṣ y
R 37 Original state of this die (n.b. the relative states of this die would indicate that $\mathrm{O}_{13}$ precedes $\mathrm{O}_{\text {I2; }}$ but the contrary indication is given by the relative states of R 39 , with which $\mathrm{O}_{13}$ is used later than $\mathrm{O}_{12}$ )
16.97 * London $1938=$ Helbing 1927, 1657

- Paris 945
$50 \quad \mathrm{OI} 3$
R 39 Small alterations in the hair; viz. later state of die than with $\mathrm{O}_{12}$ (48 above)
- Berlin

I7.II Boston add. 29
17.20 Vienna
$16.83^{*}$ London 1936 (found at Sandbanks, Poole harbour, 1922)
16.15 Syracuse, Megara Hyblaea hoard I949, 55855
16.91 * Leu 1965
$5 \mathrm{I} \quad \mathrm{O} 13$
R 40 Similar head r., uncertain number of dolphins; corn grain below

- $\quad$ * Salton

Plate 12
52 O I4 Quadriga 1., double ex. line; in ex. dolphin and ṣy
R 4 I Head l., ampyx, triple earring;
three (?) dolphins
17.31 * AC 16, $593=$ Cahn 84, I83
17.11 * London 1938

- Priv. coll. Y
- Syracuse

53 O I5 Similar, but ex. line more widely spaced, and in ex. only legend seys
R 42 Similar, no ampyx; four dolphins
16.78 * ANS $=$ Schulman 26. 1. I913, 2002
I6.10 Hague

- Luneau 224
17.43 London BMC 10

54 O I5
R 43 Similar to R 42, four dolphins (but not below neck)
15.65 * London $1938=$ Nav. 5, $872=$ Glend. 28.6. 1938, 192 (obv. tooled)
55 O I5
R 44 Head 1., generally similar, with ampyx; three dolphins visible 17.07 * Priv. coll. Y = Hess-Leu 1957, I35
56 O I 5
R 45 Similar; two dolphins visible in front, probably another behind - * Syracuse

57 O i6 Quadriga r., double ex. line; in ex. two dolphins (but no legend)
R 46 Similar head 1., but no dolphins $17.00^{*}$ SC 1927, I 144

58 O $16^{\prime}$ Die completed by addition of legend s.ys in ex. between dolphins

R 47 Similar head 1., three dolphins visible (one of which below neck) 17.01 * London 1926

O $16^{\prime}$
R 48 Head 1. with wreath and triple earring; behind, star and uncertain mark; two dolphins visible in front 17.00 * Berlin

60 O I6'
R 49 Similar head 1.; six dolphins
17.04 ANS $=$ Walcher Molthein $426=$ Hess 27. 10. 1902, 559
17.16 Berlin
17.39 * London Lloyd $1588=$ Nav. 6, 425

- Pennisi

610 I6,
R 49' Same die with head much altered and enlarged throughout; dolphins unchanged!
17.33 * Boston 327

62 O 17 Quadriga 1.; double ex. line, legend ṣys in ex.
R 49" Same die further altered; head unchanged but dolphins fattened 16.5I * Oxford $2138=$ Soth. 9.3.1936, 22

- Berlin
- Priv. coll. Y
$63 \quad \mathrm{O}_{17}$
R 50 Larger head, of good style, with wreath and earring; three dolphins. Dot in front
17.10 * Berlin
16.87 Boston 325
17.22 MMAG 43, 1970, 54
16.23 * London Lloyd $5886=$ Benson 54253
$64 \quad \mathrm{O}_{17}$
R 5 I Head 1., smaller and inferior style; wreath and earring; three dolphins visible
17.22 * Berlin
$65 \quad \mathrm{O}_{17}$
R 52 Similar head 1. , wreath with cornear; triple earring; behind, star and monogram (incomplete). Two dolphins visible
17.22 AC 16, 594
16.76 * London 1938 (BMQ 1938, xliv, I) = Nav. 6, 424
17.25 Hirsch 30,380
- Pennisi
$66 \quad \mathrm{O}_{17}$
R 53 Head 1., smaller with normal wreath and earring; three dolphins. Dot in front
17.06 Cambridge McC 2484
17.21 * London BMC 17 $_{7}=$ Hill Sicily pl. x, II
67 O I8 Similar, but thick ex. line, horses lower. In ex. legend ss s s
R 54 Closely similar to $R 53$ and perhaps altered from it; if so, alterations include dolphins in front 17.26 * Leu Sicilia 143

68 O I8
R 55 Head 1., wreath and earring normal,
good style; four dolphins, shell below chin
17.22 * Jameson 242 I

69 O I9 Quadriga l., thick ex. line; star above horses; in ex., legend s y s
R 56 Head 1., similar to last, four dolphins; in front, dot
17.13 * Brussels

- Berlin
17.12 Hess-Leu 1966, 172
17.11 Merzbacher 2. II. 1909, $2489=$ White King 66
70 O 19
R 57 Head 1.; similar, four dolphins; below chin, swastika
16.94 * Boston $324=$ Warren 425
- Berlin
16.07 London Lloyd $1587=$ Hirsch 29, IOI
16.78 Jameson 691
16.86 MMAG 32, 1966, 68
- Paris 94I
17.2I MMAG 43, 1970, 53
$71 \quad$ O 19
R 58 Head 1. with wreath and earring, simpler style; four dolphins
16.76 ANS $=$ Schulman 8.6. 1931, $54=$ Hamb. 96 , $44=$ Schulman 7.6. 1937, 98
16.75 Berlin
17.00 Hirsch 19, 156
15.90 Van Vleuten, Lempertz Köln 1926
16.78 * London BMC I3
16.84 New York Met., Ward 365
16.90 Paris Luynes Io85
- Priv. coll. Y
- Pennisi

72 O 19
R 59 Similar head; four dolphins
17.00 Hirsch 32, $61=$ Hindamian 177

- ANS
16.53 Cambridge, SNG IV III9
16.62 do., 1120
17.37 * London BMC 16

73 O 19
R 60 Similar
16.52 * London BMC 14

74 O I9
R 6I Similar
$16.92^{*}$ London BMC 15
17.02 Naples 4384

75 O 20 Similar, but ex. line of two parallel lines; star above; in ex., dolphins flanking legend ṣy
R 62 Head 1. with normal wreath and earring; smooth and elaborate style; four dolphins
17.20 Berlin
16.72 * Paris A-V 272
16.83 Nav. I, 514
$76 \quad \mathrm{O}_{20}$
R 63 Similar
16.44 * Cambridge McC $2483=$ Hirsch 15, 1084
77 O 21 Similar to $\mathrm{O}_{2}$ 2, but no star above; dolphins and legend in ex.
R 64 Similar
$16.38^{*}$ London BMC 12
78
O 21
R 65 Similar
16.94 * Boston 326
16.91 Brussels H 824
16.99 Paris 944
(78) - Martinetti-Nervegna

1907, $794=$ Engel-Gros
21
$79 \quad \mathrm{O} 21$
R 66 Similar
16.16 Hess-Leu 1968 I15
16.50 * Paris Luynes 1082
$80 \quad \mathrm{O} 2 \mathrm{I}$
R 67 Similar
16.17 AC 16, $952=$ Wotoch $238=$ Stiavelli $179=$ C. Clark 9I
16.52 Lockett SNG III $846=$ Nav. $1,513=$ Hirsch 14 , $174=$ Nav. 5, 986
16.63 * London BMC II

8I O 21
R 68 Similar
16.75 * Cambridge McC $2482=$ Benson 248
$82 \quad \mathrm{O} 2 \mathrm{I}$
R 69 Similar
16.78 Hess-Leu 1956, 137
$16.39^{*}$ Berlin

- Syracuse

83 O 22 Similar; possibly star above; legend only in ex.
R 70 Similar to R 58-6I 14.60 * Brussels

## Ršmlqrt - R'šmlqrt

The entire coinage of this mint seems to belong to the second half of the fourth century. This is indicated by the occurrence of early specimens (no. 18) in the Nissoria and Gibil Gabib hoards (seebelow, p. 56-57) and by the numerous specimens of the later groups buried in hoards during the time of Agathokles (below, p. 59); it seems unlikely that the coinage continued later than c. 305-300 however, as virtually all the coins are accounted for by the date of the Pachino hoard (cf. p. 59).

The question of where this mint was situated is a very difficult and indeed for the present insoluble problem. The main difficulty to be faced is, that the series consists of nothing but tetradrachms, and there are no smaller coins or bronze coins which might, from the evidence of local finds, help to locate the mint. The coins occur in a number of hoards from almost every part of Sicily though few are from the western part of the island; in any case there are no indications to be obtained from any local predominance in one area rather than another. The meaning of the name Ršmlqrt = Cape of Melqart is not decisive as there are many possible capes, and different places associated with Melqart-Herakles; and little reason to prefer one to another. The favourite proposals have usually been either Kephaloidion (Cefalú) or Herakleia Minoa, but neither of these is convincing.

Cefalu has the merit of an excellent cape or headland, one of the most impressive and well known in Sicily. But it was a Sikel town and not Punic, though friendly with Carthage, and in 396 made a treaty with Himilco; after this it was captured by Dionysios and there is no evidence that it ever returned to the Carthaginian side. The fact that it was captured by Agathokles in 307 proves almost nothing about the situation there in the intervening period. It must be emphasised at once, that the presence of specimens in the Cefalú hoard published by Lloyd in NC 1925 is merely typical of the distribution in several other hoards of this period, and proves nothing about the location of the mint, as Lloyd thought; the coins are in fact equally represented in the 1957 hoard from Pachino.

The earlier phase of Cefalú is illustrated by the coins inscribed «Herakleiotan ek Kephaloidiou», which have been discussed by Consolo Langher in Kokalos 7-8, 1961-1962, 166 ff . That these coins are undoubtedly coins of Cefalú, and not, as has been supposed by others, of refugees from Cefalú settled at Herakleia Minoa, is I think amply demonstrated by Mrs. Langher. Her conclusion is further reinforced by the existence of an unpublished coin in the Pennisi collection ${ }^{23}$, inscribed «Kephaloiditan» (Plate 21 C). However the Pennisi coin seems to be appreciably later in style than the «Herakleiotan» coins, and I would think it likely that the «Kepha-

[^12]loiditan» coin should be of the second half of the fourth century, without attempting to suggest too precise a date. If this is correct, it would certainly diminish the possibility of Cefalú being under Punic control at the period when the Ršmlqrt tetradrachms were being minted.

The other current favourite for Ršmlqrt, Herakleia Minoa, is likewise not without difficulties. The earlier settlement seems to have been destroyed in 409 B.C. but was restored by Timoleon in 345. At this period it seems to have flourished, as is attested by the recent excavations and discoveries on the site - from all of which one would not get the impression that Herakleia - with its notable Greek theatre - was anything but a Greek city at the time. However as has been remarked above, the coins inscribed «Herakleiotan ek Kephaloidiou» must no longer be reckoned as part of the evidence. In other respects, however, it seems to me perfectly reasonable to follow the opinion of De Miro in Kokalos 4, 69-8I, that Herakleia was in fact in the Greek zone, since it lies on the east side of the river Halykos which formed the boundary between Greek and Punic Sicily. The coins found at Herakleia are admittedly mostly Punic ${ }^{24}$, but this, it seems to me, is readily explained by the proximity of the city to the Punic zone, and such coins do form quite an element in the finds even from Greek sites much further east, such as Gela.

Of other possible sites for Ršmlqrt, we must, I think rule out cities which, though within the Punic zone and having associations with Herakles, have other coinages already assigned to them - Solus, Thermai; Eryx too has some Punic coins of the period with the legen 'rk (e.g. Plate 24, 23-24). As for Trapani (Drepana), the harbour of Eryx, there seems little if any reason for thinking of an important mint there in the fourth century. But another place which was securely in the Punic zone, and also has the association with Herakles, is Selinus ${ }^{25}$; the Greek city was destroyed in 409 B.C., but in the reconstruction which took place in the fourth century Punic elements seem to have assumed great importance ${ }^{26}$. In this connexion it may be worth making the bare suggestion that Selinus could be considered as a possible site for the Rssmlqrt mint. It must be admitted that there is nothing in the copious finds of coins (mainly Punic) from the site ${ }^{27}$ which could directly support this hypothesis (a single tetradrachm was included in a hoard from Selinunte in 1877, cf. Kokalos 7, tav. XX, 2), though this, for reasons already outlined above, namely the non-existence of bronze coins of the mint, will be a difficulty whatever site we choose. In the meantime, and merely by a process of elimination, Selinus seems to me to have a certain attraction and although the Akropolis of Selinunte may seem an insignificant feature of the landscape when compared with the mighty rock of Cefalú, it does nevertheless form a small promontory which could conceivably have attracted the name of Ršmlqrt.

[^13]It must be added that Lilybaion (Marsala) would have been a possible candidate for Ršmlqrt except that it is, in my opinion at least, needed as the most probable site for the main Sicilian «Carthage» series. The fact that the earlier coins of that series are inscribed qrthdšt does not necessarily or even probably mean Carthage itself, or if so only by extension as implying the «Carthaginian state». In any case the «Carthage» series is of undoubted Sicilian mintage and as such seems to be most appropriate to the city which became, after the destruction of Motya, the chief Carthaginian base in the island. The legend qrthdšt is accordingly susceptible of another shade of meaning, and «new city» may aptly be thought to refer to the new foundation at Lilybaion which replaced Motya. There is good analogy for such a usage, and from quite another context, that of Cyprus in the eighth to seventh century B.C., where in some inscriptions the expression qrthdšt refers to a city of Cyprus, probably Kition ${ }^{28}$. Possibly the legend on the «Carthage» coins of Sicily may contain some degree of ambiguity and refer at once to the new city of Lilybaion as well as to the Carthaginian state. At all events, it seems to me that this was the likeliest mint for the «Carthage» series, thus ruling out any chance of putting R šmlqrt there.

> Ršmlqrt
> I-4 (Plate 15)

This rather heterogeneous group is placed at the beginning of the series largely because there is no other obvious place for it. Nike does not appear on the obverses as she does everywhere else in the series, and the first die $\mathrm{O}_{\mathrm{I}}$ has instead a caduceus above in the field. The caduceus symbol occurs again at no. 23, and also in the «Carthage» series (e.g. SNG II 1620, McClean 3045), as one of the symbols associated with Tanit, by analogy with its occurrence on many Punic stelai (for which see Anna Maria Bisi, Le stele puniche, Rome 1967).

The most interesting coin of this first group is undoubtedly no. I, where instead of the expected female head on the reverse there is a bearded head of Melqart, wearing a wreath and an earring (cf. Plate 21). The earring is paralleled by a coin of Solus (Plate 23, 21) and by the Siculo-Punic bronzes, SNG Cop. 94, also at Motya (Plate 23, I3). So far as I can trace, this coin with the Melqart head is unpublished although it has been in the B. M. since 1874. The other two reverses of this group are the usual female head with dolphins, and on $\mathrm{R}_{2}$ (no.3) a corn grain is added to the die, as in the case of Panormos no. 24, 43 .

[^14]Three obverse dies $\mathrm{O}_{4-6}$ occur in this group, and each has the regular Nike above. $\mathrm{O}_{4}$ is not linked, but $\mathrm{O}_{5}$ and O 6 are linked by R 6 . The group has a certain homogeneity on account of the style of $\mathrm{R} 4,5,8$ (nos. 5, 6 , 10 respectively) which all follow an identical prototype with sphendone and stars. However the treatment of R 6 (no. 7-8) is interesting, with the hair rendered in a knobbly pattern, which has a considerable affinity to certain dies of Thermai (Plate 22, 4, 5, 6): these must be contemporary with R 6 and thus give a date in the third quarter of the century (see below 70 ) ${ }^{29}$, No. 9 ( $\mathrm{R}_{7}$ ) has another hair rendering but the face is similar to that of R 6. In the obverses of this group we see a style that is very typical for this mint, with its exaggerated upward surge of the horses, which is to be seen again at no. 21 (Plate 16) and no. 31 (Plate 17).

$$
\text { II-25 (Plates } 16-17)
$$

This group contains five obverses, four of which are linked in the manner indicated in the following diagram.

| O8 | O9 | Oıо | Oif |
| :---: | :---: | :---: | :---: |
| R ıо---R 10 |  |  |  |
| R 12---------- R 12 |  |  |  |
| R I4----------------- R 14 |  |  |  |

The obverses are of quite disparate character and only O io shows the really typical upward surge of the horses. On O ir the caduceus symbol appears in front of the horses, as has been mentioned above (cf.Oi). The most typical style of reverse is that of R 9, II, I3, a rather large and exuberant development of a basically Euainetan style, though without the wreath. There is no direct prototype or close parallel to be found in the «Carthage» series. The type of R 9 (no. II) is adapted with a greater degree of stylisation when it comes to nos. 15-17, 21, 23-25. A corn grain appears on nos. 17, 23-25 replacing the dolphin behind the head. A quite different style is seen in R io (nos. 12, 20) and R 15 (no. 18), based on the model of Eukleidas' head with the five-fold earring (Tudeer rev. 35), a prototype which also seems to have pleased the engravers of the sys series (nos. 14-15, Plate 8) at a much earlier date.

This varied but closely-linked group is important for the chronology of the mint owing to the presence of specimens of no. 18 in two hoards, those of Nissoria and Gibil Gabib. The date of the Nissoria hoard has been set, on other grounds, at abour

[^15]330 B.C. ${ }^{30}$; that of Gibil Gabib (in Syracuse museum) must be the same, as it has the same latest coins, the N -series of Corinth and the «Carthage» series as far as the type represented by Jenkins-Lewis, pl. 26, 4. Thus the two hoards agree in essentials and give a good indication for the chronology of the R šmlqrt mint, which can only have begun to operate in the second half of the fourth century; and this is further in agreement with the indirect indication already derived from our comparison of Ršmlqrt no. 7-8 (R 6) with Thermai nos. 3-5, specimens of which were also contained in the Gibil Gabib hoard.

## 26-30 (Plate 17)

In this short group a single obverse is coupled with four reverses. Of these, R 20-2I are of a rather hard and stylised aspect; noteworthy is the replacement in the die of the dolphin behind the head by a large fish, recalling another fish on sys nos. 19-20 ${ }^{31}$. R $22-23$ are quite different and more like the regular Greek-Carthage style; here for the only time in this series is there a wreath with corn ears, so characteristic of «Carthage» as e.g. SNG III 1048, Jenkins-Lewis, pl. 26, 2-6.

$$
\text { 3I-68 (Plates } 17-21)
$$

This large group comprises almost all the rest of this mint's output, with no less than eleven obverse dies; of these, only one, $\mathrm{O}_{17}$ (no. 48), has so far not appeared in a definite linkage of dies, but there is no doubt that it too is embedded in this group by the style of its reverse, and it is therefore provisionally placed next to no. 47 whose reverse is closely similar (Plate 19). The scheme of the linkages is as follows:

$$
\begin{aligned}
& \begin{array}{llllllllll}
\mathrm{O}_{13} & \mathrm{O}_{14} & \mathrm{O}_{15} & \mathrm{O}_{16} & \mathrm{O}_{18} & \mathrm{O}_{19} & \mathrm{O}_{20} & \mathrm{O}_{21} & \mathrm{O}_{22} & \mathrm{O}_{23}
\end{array} \\
& \text { R26--R } 26 \text { R } 32-\text { R } 32 \text { R } 39-\text { - R } 39 \\
& \text { R } 27 \text {--R } 27 \text { R } 45 \text {------- R } 45 \text { R 5I-- R } 51 \\
& \text { R31-------R3I--R3I R } 46-\text { R } 46 \text { R } 49 \text { - - R } 49
\end{aligned}
$$

On the whole the obverse dies display the rather wildly upward-rearing horses so typical for this mint, though the style is far from even as between $\mathrm{O}_{13}, 15,17,18$, 22, 23 (nos. 31, 41, 48, 49, 65, 68). As against these, $\mathrm{O}_{14}$, 16 (nos. 35, 42) are more restrained and placid, as is $\mathrm{O}_{20}$ (no.61). O i9 (no.54) is another variant, harking back to the early style of Eumenes at Syracuse; while O 2 I (no. 62), with its sagging horses, is also remarkable for having the legend reversed (viz. reading from left to right).

[^16]The reverses likewise offer a great variety of style and treatment. The predominant style of head, equipped with a wreath but without corn ears, derives ultimately from the Euainetos model, but only at some removes; in fact, the pure Euainetos style, which appears sometimes at Panormos (e.g. Plate 13, 69) and also at the «Carthage» mint, is never found at Rs mlqrt , for whose typical styles much closer parallels can be seen in some of the characteristically Punic styles of the «Carthage» mint.

Of the various stylistic groups represented here, we may first distinguish R 24, 26, 27 (nos. 3I, 33, 34), slightly astringent and stylised, with which may be compared «Carthage» dies such as Jenkins-Lewis, plate 26, 5; reverses 28, 29 (nos. 37-38) have a somewhat gentler aspect, leading into $\mathrm{R}_{31}$ (nos. 40, 45, 49); the latter in turn has further affinites with $\mathrm{R} 38,39,40,43$ (nos. $50,51,52,56$ ). Here there is a likeness to «Carthage» Jenkins-Lewis, plate 26,7. Another grouping consists of $R_{32}, 33,34,35,36,37$ (nos. 41, 43, 44, 46, 47, 48) all of which have in one way or another much in common with «Carthage» dies exemplified by Jenkins-Lewis, plate 26, 7 and here Plate 2I B, both representing a rather bold and important development of the Euainetos type; the corkscrew curls on Jenkins-Lewis, plate 26, 7 are also an important element on Ršmlqrt R 36,37 (nos. 47, 48) and even R 5 I (no. 67), and the rather stylised sweep of the back hair on $\mathrm{R} 33,35$ (nos. 43, 46) is close to that of «Carthage» Plate 2I B. A more compact style is shown at R 4I, 42, 44,46 (nos. $53,55,57,59$ ) for which it is difficult to cite any precise parallels; the presence of a corn ear on R 44 (no. 57) is to be remarked. Several other styles are represented, of which R 45 , 48 (nos. 58, 63) have become so far removed from any Greek or even Punic prototype as to have an almost Celtic aspect ${ }^{32}$. It is equally difficult to find any close analogy for R 47 (no. 60) or R 49 (no.64). On the other hand R 50 (no. 66) goes back to a rare «Carthage» die here shown on Plate 21 A , which would be nearly contemporary with Jenkins-Lewis, plate 26, 5, 7, and these latter have already been mentioned as analogies for other dies of the Ršmlqrt group with which we are concerned.

Clearly, the discussion of the style of these coins cannot be taken any further for the moment and without having the complete series of «Carthage» coins for comparison; it is hoped to present the latter series in further articles. For the present it should be remarked only that the parallels from «Carthage» which have been cited here all come from the third and last quarters of the fourth century - that is, assuming that the group with Horse and palm (as e.g. Jenkins-Lewis, plate 26, 2-8) covers approximately $350-325$ B.C. and the group with Horse's head (as Jenkins-Lewis, plate 26,9 ) approximately $325-305$. In any case it is clear that the R s smlqrt mint seems to have depended largely - and to a greater extent than ssys Panormos - on prototypes from the «Carthage» mint, though at the same time adding its own characteristic touches.

32 SNG II 164I could perhaps be cited in this connexion, but it is not close.

This small group, consisting of only a single obverse die and two reverses, poses something of a problem, for its place in the series is far from clear. Obviously it must be put either before or after the large group nos. $3 \mathrm{I}-68$. The style of the heads R 52,53 is at first sight much more Greek than most of those in the preceding series, though this fact gives little indication of the true position. The obverse has a quadriga which is not so typical for this mint, and the wide exergual line recalls some of the later s y s dies, e.g. O I8, 19 on Plate 13 ; for this reason, at least nos. 69-70 may plausibly be placed towards the end of the series. A rather fresh specimen in the Megara Hyblaia hoard 1967 might confirm this.

The occurrences of specimens of the last two groups (nos. 31-68, 69-70) in various hoards are reasonably frequent; the hoards in question are invariably from the period of Agathokles ${ }^{33}$ and clearly confirm that the bulk of the Rsmlqrt coinage must belong to the last quarter of the fourth century. In fact the series seems to extend about as far as the «Carthage» Tanit/horse's head and the Agathokles quadriga types, both present in the Pachino hoard 1957 . This hoard ${ }^{33 a}$ did not include the subsequent «Carthage» Melqart head/horse's head nor the Agathokles Nike with trophy types, and in fact seems to have buried about 305 B.C. It did contain specimens of the following numbers of the R šmlqrt mint - 37, 4r, 47, 48, 64. A similar but less well recorded hoard from Palermo 1936, of which some information is preserved in the B. M., likewise contained a specimen of no. 47 .

The other hoards relevant for the mint represent a slightly later phase in the reign of Agathokles, containing both the Carthage Melqart head / horse's head type and also the Agathokles Nike with trophy type. The presence of these would indicate, I think, a date of burial early in the third century. The hoards in question are those of Cefalú, Megara Hyblaea 1967, Selinunte 1877 and Cammarata. The Cefalú hoard, published by Lloyd in NC 1925, included specimens of our nos. $17,39,48,53,64,66$. That of Megara Hyblaea 1967, not yet published but which I am grateful to the authorities of the Syracuse museum for allowing me to study, contained specimens of no. 53 and 69 . The Selinunte 1877 hoard ${ }^{34}$ contained a single specimen, of no. 39 . Finally the Cammarata hoard ${ }^{35}$ appears to have included the same main elements, among them some specimens of the R šmlqrt mint, but we have no details.

Putting together the indications derived from the various hoards of the Agathoklean period for the lower end of the series and of the Nissoria and Gibil Gabib hoards for the earlier section, it seems justified to estimate the duration of the mint as covering roughly the second half of the fourth century (cf. above, p. 56-57).

[^17]This is a strange group which stands quite apart from the main series of the mint and cannot be accomodated within the regular sequence. It seems doubtful if it can be a regular issue of the mint, though it could be later than the regular series. Here, the head is transferred to the obverse and the quadriga placed on a deeply concave reverse. Both for this reason, and because of the style of the head O 25 , we find a strong reminder of the Agathokles quadriga coins at Syracuse ${ }^{36}$; the latter had also influenced the style of the latest groups of the s ys mint (cf. above, p. 44). It is noteworthy that the legend, here of course on the reverse R 54, takes the form r'smlqrt, and in this respect resembles that of $\mathrm{O} 8,9, \mathrm{II}$ and 24 .

It is difficult to find any explanation for the linkage of the same quadriga R 54 with a quite different head O 26 (no.72), a head which is further linked with a stepping horse and palm tree reverse ( R 55 ) at no. 73, This unexpected linkage might at first sight be thought to afford some positive connexion with the «Carthage» series where the types of no. 73 occur, but in fact the head bears little resemblance to any of the other dies present in the regular «Carthage» series, and the same may be said of the reverse with its two Punic letters below the horse. Since no. 73 will not fit into the «Carthage» series, it seems inevitable to regard it as something quite irregular, and the apparent linkage between the types of Ršmlqrt and «Carthage» cannot be looked on as significant either for dating or for place of mintage.

[^18]| ${ }^{(01)}$ |  |  | カ98ちサいの |
| :---: | :---: | :---: | :---: |
| ${ }^{(102)}$ | 「9¢L4ma | ${ }_{42}(1060)$ |  |
| den | 9pbuma | ${ }_{48}^{8(0) 7)}$ | 198ちyma |
| $5(04)$ | 可から449 |  | 9pS449 |
| 6 （0） |  | （099） | 十冖¢く449 |
| ${ }^{(06)}$ | tapluma |  | क huma |
| e | 5ym9 |  | prr）ppt |
|  |  |  | ト9¢ $\mathrm{F}_{\text {¢ }}$ |
| 8 （0） |  |  | T945444 |
|  | 9\＄ら4449 | （024） |  |
| incompec | 90くりいキ9 | $\mathrm{R}_{59}$ | t99ヶ44＊ |
| 25（ori） | 9やイッツ女の |  | ヘ0 |
|  | カッチイッツの |  |  |

## Plate 15

I O I Fast quadriga 1．；double ex．line， legend in ex．Above，caduceus （but no Nike）
R I Head of Melqart bearded，r． with wreath and earring． 16．32＊London 1874 （Castellani） Enlarged x 2：plate 21
$2 \mathrm{O}_{2}$ Similar，no Nike，nothing in field above；double ex．line and legend in ex．
R 2 Female head r．，with single－drop earring；three（？）dolphins
16．3I＊Lockett SNG III $740=$ Priv．coll．Y
$3 \quad \mathrm{O}_{2}$
R 2＇Same die with addition of corn grain behind head
16．77＊Leu 1965
$4 \mathrm{O}_{3}$ Similar to $\mathrm{O}_{2}$
R 3 Similar head，with ampyx，single－ drop earring；at least four dolphins， possibly a fifth behind head
－$\quad$＊Uncertain sale cat．
（no．III）
$5 \mathrm{O}_{4}$ Quadriga r．with rearing horses， Nike above．Legend in ex．
(5) R 4 Female head r. with sphendone ampyx, triple earring; three dolphins 16.77 * Boston add. 24 = HessLeu 1959, $115=$ Jameson 1903

6 O 5 Similar, but horses lower and charioteer more forward. Legend in ex.
R 5 Similar to R 4, three dolphins 17.01 * ANS
$7 \mathrm{O}_{5}$
R 6 Larger head r., with sphendone and ampyx, hair knobbly, triple earring; three dolphins 16.20 Paris Luynes 922

- Luneau 220
16.76 * London Lloyd $1598=$ Nav. 6, 36 I

806 Similar, horses very large and charioteer very high. Legend in ex.
(8) R 6
17.05 * Sambon 19.12. 1906,494

- Syracuse, Mineo hoard 25284
906
R 7 Large head r., slightly untidy hair, triple earring; two dolphins
16.97 * Lockett SNG III $737=$ Nav. 12, 708
16.6I London $1939=$ Ciani 1929, 50
- Pennisi

06
R 8 Head with sphendone and ampyx similar to R 4-5, triple earring; four dolphins
17.02 * Cambridge McC $2487=$ Hirsch 21, 592
17.24 Hess-Leu 1960, 102

I6.72 Priv. coll. X

- Palermo

Plate 16

II $\mathrm{O}_{7}$ Quadriga l., horses in close formation; Nike above (?); double ex. line, legend in ex.
R 9 Large head with waved hair, tripie earring; two dolphins visible in front 16.82 * Hirsch I9, 16 I

I2 O 8 Similar, horses more level; single ex. line. Legend in ex.
R io Head with sphendone (decorated with stars) and ampyx, earring with five pendants; three dolphins 16.56 * London 1929

I7.01 Nav. 5, 873
16.90 Rosenberg 72, 175

I3 O8
R II Similar to R 9; two dolphins visible in front
$16.87^{*}$ London $1938=$ Helbing 12.4. 1927, I658
16.75 Paris Luynes 924

- Berlin
- Salton

14 O 8
R II' Same die, but worn and partly altered (nose, mouth and hair)
(I4)

$$
\begin{aligned}
16.45 * & \text { AC } 14,90=\text { Helbing } \\
& 1930,108=\text { Cahn } 75, \\
& 228=\text { Glendining } \\
& \text { 31. 1. 1951, } 58
\end{aligned}
$$

1508
R 12 Large head with rolled hair, ampyx, single-drop earring; two dolphins 17.15 * Paris 946

1608
R I3 Head similar to R 9, R II, triple
earring; three dolphins
I6.65 Nav. 5, 87 I
16.40 Egger 4I, 12 I
16.97 Hunter xvi, 5
16.52 MMAG 1951, 219
17.07 London BMC I9

-     * Pennisi
16.65 Hague
17.00 Berlin
- Salton
$17 \quad 08$
R 14 Similar to R I3, etc., but with ampyx, triple earring; two dolphins in front, corn grain behind 16.61 * London Lloyd I597, Cefalú hoard
(I7) 16.56 Egger 26.II. 1909, 195 I
16.90 Priv. coll. Y = Lockett

SNG III 739
17.00 Hirsch $30,350=$ Sambon 19. 12. 1907, 500
17.32 Hess-Leu 1957132
16.94 Berlin

I8 O 9 Quadrigal., horses regular and low to groundline; double ex. line, legend r'smlqrt
R I5 Head with sphendone (decorated with stars) and ampyx, earring with five pendants; three dolphins 16.66 ANS $=$ Nav. 5, $874=$ Luneau 222
16.47 Paris Luynes 927
17.3I Nav. 4, 283
16.90 Hague
17.02 * London BMC 2

- Syracuse, Nissoria 54542

I7.00 Syracuse, Gibil Gabib 48296
$19 \mathrm{O}_{9}$
R 16 Head r., triple earring; no dolphins; in front, crescent? 16.88 * London Lloyd 1596

- Pennisi
- Baranowsky 1929, 1554a
$20 \mathrm{O}_{9}$
R ıo Die more worn
16.81 Jameson 596
r6.96 Cambridge McC 3053
16.32 AC 16, 486
(20) $\quad$ 16.4I Oxford $2148=$ Hirsch $29,83=$ do. $19,160=$ Schulman 21. 10. 1912, $\mathrm{I}_{9}=$ do. 7.6. 1937, 96
16.29 ANS = Münzh. Basel 4, 561 = Cahn 7I, 205 = Cahn 8o, II3
17.08 * Priv. coll. $Y=$ Lockett SNG III $738=$ Nav. 4, 232
16.82 Hess-Leu 1958, I I I

2 I O Io Quadriga with horses very high similar to O 6
R 12
16.75 Nav. 6, $367=$ Schulman 16. 12. 1926, III
16.95 AC 16, 49I

I6.68 Priv. coll. $Y=$ Jameson $600=$ Eggerio. 12. 1906, 87
17.10 * London BMC 20

O 10
R 17 Similar to R I2; two dolphins
17.13 * Cambridge McC 3052 = Sambon 19. 12. 1907, 493
16.60 Cahn 66, $145=\mathrm{MM}$ AG 1951, 218
17.17 Hess-Leu 1959, I 14
16.85 ANS

I7.05 Nav. 6, $366=$ Platt 3. 4. 1933, $68=$ Schulman 16. 12. 1926, IIO

Plate 17

23 Oir Quadriga 1., horses low and regular, charioteer amidships, double ex. line, legend in ex. On 1. caduceus
R 14
16.71 O'Hagan 124
17.04 * London BMC 21
16.90 Paris Luynes 923

24 OiI
R 18 Similar to R 14
16.99 * AC 16, 492
16.65 SC 1927, 1148

25 O II
R 19 Similar to R 18
17.25 * Stiavelli $158=$ Merzbacher 1910, $218=$ Sotheby 21.4. 1909, 85
17.14 ANS = Locker-Lampson $65=$ Cahn $60,188=$ Nav. 12, 709
26 O i2 Quadriga 1. with horses low regular and compact, charioteer in normal position and leaning forward. Double ex. line. Legend in ex.
(26) R 20 Head l., hair wavy and neatly rolled, triple earring; three dolphins
16.70 Hamb. 98, 226

-     * ANS

27 O I2
R 21 Similar; three dolphins
16.81 * London BMC 18

28 O I2
R 2 I' Same die, but dolphin behind head changed into fish
16.55 Hirsch 34, $155=$ Jameson 1895
16.69 * London RPK
17.09 Hess-Leu $1957=$ Priv. coll. Y

- Palermo

29 O I2
R 22 Head l. with corn ear wreath, triple earring; three dolphins
16.52 * London BMC 5

- ANS
16.60 Paris Delepierre
$30 \quad$ O I2
R 23 Head r. with corn ear wreath, triple earring; two dolphins
16.75 Priv. coll. X
16.9I Munich
16.95 Berlin
17.23 * Nav. 6, 362

3 I ${ }^{13}$ Quadriga r., horses rearing up but regular; single ex. line
R 24 Head r. with leaf wreath, triple
earring; three dolphins
16.88 Egger 4I, $120=$ Hess 28.4. 1938, 523
17.30 * London Lloyd 1604
(3I)
17.30

Glend. 3. 12. 1929, 704
$=$ Rosenberg 8. 2. 1924, 84

- Paris A-V 273
16.53 Hirsch 21, 589
17.15 Hess 18.3 . 1918, $188=$ Egger 28. II. 1904, 197 $=$ Helbing 2. 3. 1928, $123=$ Hirsch 20, 121
- Helbing 8. II. 1928, 37 I6
17.28 Oxford $2147=$ Lockett SNG III $743=$ Nav. , 426
16.82 Hague
$32 \quad \mathrm{O}$ I3
R 25 Head l. with leaf wreath, etc.;
two dolphins visible in front
16.98 * London $1919=$ Weber 1477

33 O I3
R 26 Similar to R 24
17.00 Hirsch 14, 172
17.06 * Hirsch I6, 232
17.04 Oxford 2149

34 O I3
R 27 Similar to R 24 and R 26
16.96 Hirsch 19, I58
17.12 * Nav. IO, I93 = Nav. 4, $23 \mathrm{I}=$ Merzbacher 2. II. 1909, 2490
16.72 Hirsch 34, I 54
17.22 Hague

- Proschowsky 362
$17.00 \quad$ Nav. 12, $703=$ Hess 18.3. 1918, $187=$ SC 1927, II43

Plate 18

35 O I4 Similar to $\mathrm{O}_{13}$, but horses lower and charioteer taller
R 26

$$
\text { I6.74 * Hague }=\text { Brandis, }
$$ Canessa 1922, 389

36 O 14
R 27
17.30* Hirsch 33, 342

- Syracuse
$37 \quad \mathrm{O}$ I4
R 28 Head similar, but hair more curly and wreath has extra leaves; three dolphins
16.77 * London $1939=$ Nav. 4 , $230=$ Soth. 17.7.1939, 16 $=$ Hirsch 32, $60=$ Bourgey 5. 12. 1932, 70
17.16 Brussels
(37)
- 

Feuardent 26. 5. 1914, 158
16.40 Hartwig $682=$ Hamb. 98, 224
17.27 Hess-Leu 1968, II4
17.00 Hirsch 32, 59
17.04 Jameson 597
17.08 Nav. 4, 229
17.22 Nav. 6, 363
17.36 Paris Luynes 920

- Pennisi
17.20 Sambon 19. 12. 1907, 490
17.18 Sartiges $453=$ Sambon 19. 12. $1907,489=$ Hess I954, 50
17.21 Schulman 7.6.1937,97

I6.94 Syracuse, Pachino 22
17.07 MMAG 43, I970, 57
$38 \quad \mathrm{OI} 4$
R 29 Similar to R 28, but hair wavy instead of curled; three dolphins
17.58 * ANS
17.17 ANS $=$ Bourgey 23.5. 1910,30 = do.7.6. 1909, I33
17.00 Cahn 65, $66=$ Egger 28. II I 1904, 22I $=$ Hess I94, I32
17.16 Nav. 6, $364=$ Cahn 84, $184=$ Schulman 16 . 12. 1926, 107

- Baranowsky 1934,4647
17.20 Helbing I2.4. 1927, 1656
17.30 Hirsch 33, 344
17.10 Hirsch 33, 343
16.63 London 1918
- Paris 2388
- Paris Vogué 656
17.08 Lewis $=$ Hess-Leu 1956, 88
17.04 Weber $1297=$ Feuardent I6. II. 1937, 48
17.20 Rosenberg 64, 139 I
- Soth.6.7.192I, 201

O 14
R 30 Head 1., leaf wreath, triple earring; three dolphins
I7.I8 Boston 270

- Berlin
17.07 Benson 189
16.66 Cambridge SNG IV 972
- Ciani 7.5. I955, I90
16.90 Hess 202, 2269

I5.13 London 1928
16.72 * London Lloyd I605, Cefalú hoard
17.19 Paris Luynes 921
16.90 Paris 2389
16.90 Leu Sicilia $142=$ Priv. coll. Y
17.23 MMAG 43, 1970, 58

- Palermo, Selinunte hoard I877
(Kokalos VII, tav. xx, 2)
$40 \quad \mathrm{O}_{14}$
R 31 Head r., similar to R 28, R 29; three dolphins
$16.97^{*}$ Hirsch 14,173
- ANS
- Feuardent 26. 5. 1914, I 56

O Is Quadriga r., horses rearing up, charioteer leaning forward
R 32 Head r., similar; four dolphins
I7.16 Brussels H822
17.23 Cambridge SNG IV 970 $=$ Montagu I Ior
17.24 * London BMC 7
16.76 Hess-Leu 1956, 87

- Priv. coll. Y
17.16 Priv. coll. X
17.10 Lewis
17.17 Nav. IO, I95
17.03 Syracuse, Pachino 21

42 O i6 Similar, horses more compact, charioteer leaning forward
R 32

| 17.13 * | London BMC 6 |
| :--- | :--- |
| - | Paris A-V 274 |
| I7.20 | Paris Luynes 917 |

O 16
R 33 Similar; earring larger, dolphin behind head turns inwards
16.75 Berlin
17.18 Boston = Warren 419
16.95 Cambridge McC $3051=$ Carfrae 48
16.96 Cambridge SNG IV 969
17.13 AC 17, 142

I6.94 Hague
(43)

| 16.75 | Hirsch 20, 120 |
| :--- | :--- |
| 16.87 | Hirsch 26,72 |
| 17.08 | Hess-Leu 1960, IOI |
| $16.75 *$ | Lockett SNG III 744 |
| 17.03 | Paris Luynes 916 |
| - | Paris 376 |
| 17.17 | Priv. coll. Y |

44 O ェ6
R 34 Similar to R 33 , but earring swings forward
17.34 ANS
17.03 ANS
17.16 Cahn 68, $1153=$ Schulman 16. I2. 1926, 109
17.05 Glend.-Seaby II, $186=$ Münzh. Basel IV 562
17.10 * Paris Vogué

- Pennisi
17.20 Ratto 26.4.1909, 1175
17.35 Rosenberg 72, 174
17.10 Weber 1296
16.52 SC 1927, I 145
- Syracuse, Gagliardi 1002

45 O 16
R 31
17.04 * Bompois, Holm Gesch. Siz. III, viii, 9
$46 \quad$ O I6
R 35 Closely similar to R 34 , but earring more vertical
16.91 Hunter Syracuse 56
17.05 * London BMC 12

- Berlin
- Glend. I3. II. 1957, 29
16.68 Munich
16.85 Nav. 5, 864
17.22 Nav. 5, 868
16.75 Nav. 5, $865=$ Glend.-

Seaby III, II98

- Paris 375
- Sambon 26.4. 1925, I57 $=$ do. 19. 12. 1907, 492
- Palermo


## Plate 19

$47 \quad$ O 16
R 36 Similar to R 35
17.26 Cahn 66, I46
17.23 Hess-Leu I958, 89

-     * Glasgow, Coats 2892
- ANS
17.10 Hirsch 31, $558=$ do. 15, I 008
I7.12 Jameson 598
17.07 Lewis
17.15 London Lloyd 1600

I7.09 Münzh. Basel 8, I84
16.64 Nav. I2, 705

- Glend. 1955 Laval, 227
17.25 Paris Luynes 919

I7.10 Sandeman 29
17.07 Stockholm KMK = Nav. Io, I94

- Ryan 1495
17.20 Sambon I9. I2. 1907,49I
- Palermo hoard 1936
17.00 Syracuse, Pachino I9
- Syracuse, Gagliardi 1003

O 17 Quadriga r., horses rearing up, charioteer high and leaning far forward
R 37 Similar, larger head
16.44 AC I6, 489
17.01 Berlin
16.95 Egger 46, $78=$ Soth.
6. 7. 192I, 202
17.50 Hess-Leu 1957, I3 I
16.36 London Lloyd I599, Cefalú hoard
17.05 Münzh. Basel 10 , 146
17.06 * Nav. 5, $863=$ Hess 207, $134=$ Merzbacher 1910, $216=$ Hess-Leu 1958,
ııо $=$ Egger 28. 1 I.
1904, 224
17.04 O'Hagan $125=$ Bourgey
29.5. I9II, 40

- Priv. coll. Y
- Sartiges 97
17.14 Syracuse Pachino 20 (Annali 5-6, tav. viii, I)

O 18 Quadriga r., horses very large and spread out, charioteer more upright
R 3 I
17.13 * London BMC 15

- ANS
- Berlin
- Glend.-Seaby II 1929, 187
O 18
R 38 Similar to R 3I; dolphin behind head turns towards head
16.82 * Hess-Leu 1962, 125
17.23 Schulman 6.6.1930, 28
- Naples Santangelo 7750

O 18
R 39 Similar to $\mathrm{R}_{31}$, earring more forward
16.90 London Lloyd 1603 (rev. tooled; earring removed)
17.23 * Leu 1965

O 18
R 40 Similar to R 39, slightly larger
16.7I * Boston 269
17.35 * London 1918
16.96 Paris Delepierre

- Palermo
17.17 Munich
17.43 Münzh. Basel 4, 560

O 18
R 4 I Similar, more compact head
16.50 SC 1927, 1146
17.00 * London Lloyd 1601, Cefalú hoard
16.82 Priv. coll. X

- Syracuse, Megara

Hyblaea 1967
Or9 Quadriga 1., horses in fan-like formation; double ex. line
R 39
16.77 * ANS $=$ Merzbacher 2. II. 1909, 2493

55 O 19
R 42 Head 1., compact; wreath earring dolphins normal 16.80 AC I6, 487
16.66 Hague
12.17 Hague
17.24 Hirsch 32, $58=$ Hindamian 176
16.92 Hirsch 34, $152=$ Bourgey 1913, $18=$ Sambon 19. 12. 1907, $488=$ HessVogel 1929, $131=$ Hess 202, 2268 = Hess 209, $15=$ Hess 7.3.1935, 251
17.15 Lewis
17.18 London BMC 16
17.05 * Lockett SNG III 742
16.85 MMAG 43, 1970, 60
17.04 Nav. 5, 870
17.16 Nav. 12, 706
17.00 Priv. coll. X

- $\quad$ Polese, Canessa 719
16.78 Schulman 31. 5. 1938, 75
- Stiavelli 156
- Syracuse

56 O I9
R 43 Similar to R 39, earring larger

- Berlin
16.32 * AC 16, $488=$ Headlam $180=$ Ciani 14.6. 1934, 13
16.87 Hess 208, 105
17.17 Merzbacher 2. I. 1909, $2492=$ Balmanno $42=$ Soth. 6. 12. 1907, 30

57
O 19
R 44 Similar to R 42; corn ear below 16.69 New York Met., Ward 359
16.95 * London 1968

58 O I9
R 45 Head r., rather stylised; triple earring, three dolphins

- $\quad$ * Priv. coll. Y
- Pennisi

59 O I9
R 46 Head 1., similar to R 42; four dolphins
16.55 * London 1938
17.15 Cambridge SNG IV 973
$60 \quad \mathrm{O}$ I9
R 47 Head r., peculiar shape, wreath and earring normal; four dolphins 16.84 * London BMC 14

- Berlin
- Feuardent 26.5.1914, 157
17.05 Nav. 5, 869

6I O 20 Quadriga r., very compact; double ex. line
R 46
16.59 * Lockett SNG III 741 $=$ Priv. coll. Y

62 O 2 I Quadriga r., long sagging horses; double ex. line; legend reversed
R $45^{\circ}$
17.23 * Helbing I9. II. I912, I55

63 O 21
R 48 Head r., very stylised; three dolphins
17.04 * London BMC I3
15.10 Allotte de la Fuye 1925, 124
17.24 Nav. 6,365 = Feuardent 9.5.1910, $245=$ Schulman 2I. Io. 1912, 18 Paris 2387
$64 \quad \mathrm{O}_{21}$
R 49 Head l., wreath, triple earring; four dolphins 16.87 Hamb. 98, $225=$ SC 1927 $1147=$ Polese, Canessa 1928, 720 720
16.88 Hess-Leu 1966, 171
16.85 * London Lloyd 1606 , Cefalú hoard
(64)
16.88 London 1938
17.20 Paris Luynes 926
16.62 Priv. coll. X
16.78 Priv. coll. Y
$16.80 \quad$ Vienna
17.19 Syracuse, Pachino 23

- Palermo
- Burel ro6
- Canessa-de Nicola I950, II2
65 O 22 Quadriga r., rearing horses, charioteer high and leaning forward; single ex. line, legend normal
R 49
16.79 Baranowsky 4,319 = Ratto 24.6.1929, 108
- $\quad$ * Leu 1965

66 O 22
R 50 Large head $r$.; four dolphins
$17.27^{*}$ Boston add. 23 = HessLeu 1959, II3
16.27 London Lloyd 1602, Cefalú hoard
17.33 London BMC 10
17.06 Nav. 5, 866
17.10 AC I5, $284=$ Ratto 26.4. 1909, $1176=$ Cahn 60, $189=$ Hirsch 34, I53

- Paris 377
17.35 Walcher Molthein $420=$ Hirsch 29, 82 = MMAG 43, 1970, 59
$67 \quad O_{22}$
R 5 I Head r., similar to R 32; four dolphins
16.65 London 1969
17.12 * Nav. Io, $192=$ Nav. 1 , $425=$ Egger IO; 12. 1906, 86
- Platt 3.4. 1933, 67
$68 \mathrm{O}_{23}$ Similar to O 22, but horses lower and charioteer leans further forward
R 5 I
17.20 * London BMC 8

I7.16 Nav. 5, 867
17.50 Paris Luynes 918

69 O 24 Quadriga 1., horses low on ground, thick ex. line
R 52 Head r., compact style, wreath and triple earring; three dolphins
15.60 Brussels H 82 I
17.31 * London 1938 (BMQ 1938, xlix, 2)
17.28 London BMC 4
17.00 Nav. 12, 707
16.82 Paris Luynes 925
16.62 Priv. coll. X
16.44 Ratto 24.6. 1929, 107
16.76 Stockholm KMK = Nav. 10, $196=$ Hirsch 21,590 $=$ Luneau 22 I

- Martinetti Nervegna 793
16.85 Egger 26.11. 1909, 149
16.91 Lewis $=$ Glend. Hall 1950, 6I
- Palermo
- Priv. coll. Y
- Sambon-Canessa 22.6. 1906, 175
- $\quad$ Syracuse, Megara Hyblaea 1967

O 24
R 53 Similar to R 52, earring larger
17.04

AC 16,490
16.95 Cambridge SNG IV 971
= Bunbury 527
(70)
16.50 Hague
16.76 Hirsch 32, $62=$ Hindamian 178
16.61 Jameson 599
16.77 Lewis
16.68 * London BMC 3
15.56 * Lockett SNG III 745
(rev. extensive break below the ear)
16.75 Priv. coll. X
16.30 Priv. coll. Y
$7 \mathrm{I} \quad \mathrm{O} 25$ Head r., wreath and earring; three dolphins
R 54 Quadriga r., double ex. line;
legend r'šmlqrt
15.55 Berlin

- Berlin
16.58 * ANS = White King 55
= Bourgey 29. 5. 191I, 39
O 26 Head 1.; two dolphins visible in front
R 54
$16.37^{*}$ London BMC 17
$\mathrm{O}_{2} 6$
R 55 Walking horse r ., palmtree behind; below letters ayin and gimel 16.50 * Copenhagen, Thorwaldsen
- Priv. coll. Y

Thermai - Solus
Thermai
(Plate 22)
The inhabitants of the former Himera, after its destruction in 409 B.C., were allowed to go to settle at Thermai (modern Termini Imerese); it seems likely that the new settlement remained under Punic influence during the fourth century as is suggested by the Punic character of many of the coins ${ }^{37}$.

Nos. I-4 are typically Punic in style and general aspect. All have the altar symbol in the exergue, without any inscription; the attribution is however assured from the presence of the altar on nos. 5-6 where there is an inscription in Greek. The issue is a small and compact one which cannot have lasted for a very long time. The head on R 4 (no.4) is of a type derived from Euainetos which might well occur in the «Carthage» series during the second half of the fourth century, and on this die there is a prow symbol. The other reverses are more remarkable for the very high degree of stylisation which is typical of Punic coins, and they have a close affinity to some of the earlier heads on the Rsmlqrt series nos. 7-8 (Plate 15), whose head shows something of the same treatment of the hair on top as is found at Thermai in the hair in the net at the back. The dating of the Thermai coins is indicated by the presence of two specimens of no. r in the Gibil Gabib hoard, which as mentioned above (p. 56-57), must have the same burial date as the Nissoria hoard, c. 330 B.C. ${ }^{38}$.

With nos. 5-6, where the altar symbol is accompanied by a Greek inscription, it is very difficult to determine the date or even to be sure whether these coins really follow or precede the uninscribed ones. The head R 5 could well be the work of a Punic engraver, from its style, though there are no really close parallels to hand. The obverse of no. 6 however has three letters above the exergual line $\mathrm{K} \Lambda \mathrm{H}$ which have been regarded, no doubt rightly, as the signature of an engraver, who must be Greek; the presence of such a signature could perhaps be used as an argument for an earlier date, but is in any case exceptional.

[^19]The problem of nos. 5-6 is not made any easier by the existence of another Greek issue, of didrachms and litrai only, which is of very good style though it seems difficult to deduce from it more than a general probability that the coins should belong to the middle or later fourth century ${ }^{39}$. The litra is of the same types, but has behind the head of Hera a monogram $\mathcal{A}$ which ${ }^{40}$ either by chance or otherwise recalls the monogram found on a tetradrachm of Morgantina ${ }^{41}$; this may suggest a comparatively late date. But there is no way of arriving at any certainty. There are some bronze coins (Pl. 22, A-C) related thematically to the silver which should belong to the same phase though their style is less fine; so far as that goes, these bronze coins might suggest that the Greek phases of Thermai (nos. 5-6) are late rather than early.

Solus (?)
A further tetradrachm known only from two extant specimens (Plate 22 X ) is of the same general type as the other issues collected here and its style is as close to Thermai (e.g. no.4) as to anything else. The attribution is far from sure. In the exergue is a single Punic letter which could be either kaph or vav. If it were the former, it would clearly explicable as the initial of the Punic legend kfra which is the Punic name of Solus on the coins of that city (Plate 23, 16-24), though it is difficult to understand why the legend should be so drastically abbreviated. However the stylistic similarity to Thermai would suit Solus very well.

[^20]
## Catalogue: Thermai

## Plate 2

Tetradrachms

I O I Quadriga 1., charioteer wearing Phrygian helmet; in ex., altar; no legend
R I Female head 1., hair in net, three dolphins; no legend
17.28 * London BMC, p. 254, no. I
17.30 London Lloyd $1040=$ Nav. 10, 214
16.51 Cambridge McC 2310
16.20 Helbing 24. 10. 1927, 2722 = Ready 213
17.00 Syracuse, Gibil Gabib 48297
17.65 Syracuse, Gibil Gabib 48298

-     * Uncertain (cast in BM)
$2 \mathrm{O}_{2}$ Similar to $\mathrm{O}_{\mathrm{I}}$
R 2 Similar to R I, but larger
$17.08^{*}$ ANS $=$ Hirsch 31, 162
16.91 Jameson 618 = Sambon 19. 12. 1907, 179
16.03 Priv. coll. $Y=$ Hess-Leu 1957, I34
16.60 Vienna
$3 \mathrm{O}_{2}$
R 3 Similar
- $\quad$ * Uncertain (cast in BM)
$4 \mathrm{O}_{2}$
R 4 Female head 1., wreath only; four dolphins; behind, prow 16.65 Hague
17.00 * London NC 1913, p. 226 fig. 3
17.18 London Lloyd $1039=$ Hirsch 34, $17 \mathrm{I}=$ Nav. 4 , $282=$ Sambon 19. 12. 1907, 238
17.19 * Paris 585
$5 \mathrm{O}_{3}$ Quadriga 1., Nike above; in ex., altar
R 5 Female head r., three dolphins; legend ©EPMITAN
16.98 Jameson $1896=$ Hirsch 30,359
17.28 * Paris 586, NC 1910, p. 223
$6 \quad \mathrm{O}_{4} \quad$ Similar, but in ex. legend $\Theta E P M I T A N$; above ex. line, engraver's signature $\mathrm{K} \Lambda \mathrm{H}$
R 5
16.95 * Pennisi, ZfN 1935, taf. IX, $\mathrm{r}=$ Sambon

19. 12. 1907178
16.82 MMAG 43,55

Didrachms

7 O5 Head of Hera r., dolphin behind, legend ©EPMITAN
R 6 Herakles seated on rock, holding club; behind, bow and quiver, etc.
8.38 * London PCG, pl. 26, 28
8.19 Paris Luynes 938

- Berlin Regling MaK 733

Bronze
(B) $\quad 3.36^{*}$ London BMC 2

C Obv. Female head with hair tied, crescent below chin
Rev. Head of Herakles r., legend @EPMITAN
4.8I * London Lloyd 104I

Solus (?)

Plate 22

## Tetradrachms

X O i Quadriga r., Nike above; in ex. Punic letter (kaph or vav)
R I Female head r., wreath, dolphins

| ic uncertain, p. 25 |  |
| :---: | :---: |
|  |  |
|  |  |

17.17 * London BMC, SiculoPunic uncertain, p. 254, r Palermo

For other coins of Solus, see plate 23, 15-24. I have not however included there the bronze type given by Imhoof-Blumer 1886, p. 270, no. 13 (cf. BMC, p. 254, no. I, Gabrici, p. 169, no. 38) with obverse helmeted head, reverse free horse and caduceus; the letters flanking the head seem difficult to be sure about.
Solus - Eryx Legends

Solus (?) tetradrachm, Plate 22 XI
Solus, Plate 23, 18
K9าy
Solus, Plate 23, 16


Eryx, Plate 24,24 494
Solus, Plate 23, 17 *ワ)

# Minor issues and bronze 

Plate 23
Motya
I Eagle on capital / Dolphin, shell MOTVAION AR 0,54 g (BMC I)
2 Female head, wreath border/Nymph standing before altar, AR 0,64 g (BM)
shell in field; legend $m$ - ? (cf. Luynes 1049)
3 River-god protome/Female head r., mtv'(cf. legend no. 37) AR 0,34 g (BMC 7)
4 a Gorgon / Palm tree mtv' (cf. legend no. 37) AK $0,66 \mathrm{~g}$ (SNG II II40)
4 b do., but mtv ' reversed (see p. 34 above)
AR 0,7I g (BMC II)
5 Gorgon / Palm branch mtv,
AR 0,35 g (Paris, Luynes IO5O)
6 Facing head / Crab mtv' (cf. legend no. 37, p. 34)
7 Facing head / Corn grain and four pellets (? Motya)

8 Gorgon, three pellets / Palm tree mtv' reversed
9 Horse protome / Palm tree mtv,
io Horse standing / Crab (? Motya)
II Facing head / Crab (? mtv")
AR $0,7 \mathrm{I} \mathrm{g}$ (SNG II II44)
AR 0,25 g (Motya museum,
Whittaker, Motya p. 349, no. 5)
AE 6,22 g (BMC I6)
AE 0,97 g (Berlin)

I2 Facing head / Male head
AE (Berlin)

I3 Young male head with earring / Crab
AE 1,05 g (BMC «Brettii» no. II4)
AE 2,53 g (SNG II II46)

I4 Male head with beard and moustache / Crab
AE $1,83 \mathrm{~g}$ (SNG II II45)
AE 2,19 g (BM)

## Solus

Is Didrachm, types of Selinus rev. $\Sigma O \Lambda O N T I N O N$
i6 Cock/Tunny kfr'
17 Seated Herakles (?) / Club, bow, quiver, kfr '
i8 Herakles head / Crayfish, pellets kfr ' (inverted)
I9 Herakles head beardless / Hippocamp
20 Athena head facing / Warrior with bow kfr ,
21 Bearded head with earring / Horse
22 Same head / Tunny
23 Herakles head beardless / Tunny
24 Female head with corn wreath / Bull, kfr ' in ex.

AR (Berlin $=$ Rizzo LXV, 2)
AR 0,65 g (Berlin)
AR 0,61 g (BM ex. Jameson 732)
AE 7,5I g (BMC 2)
AE (Priv. coll.)
AE (Priv. coll.)
AE (ANS)
AE (Priv. coll.)
AE (Priv. coll.)
AE (Priv. coll. ex. Walcher
Molthein, pl. IV, 560)

Plate 24

## Panormos

I Female head r. / Prow ПAN AE $1,04 \mathrm{~g}$ (McClean 2498)
2 Male head r. ПANOPMO reversed / River god protome, AR o,86 g (BMC 5)
shell below

3 Female head r., dolphin / Poseidon
4 Female head r., four dolphins / Poseidon (rev. die $=$ no. 3)
5 Poseidon / Goat rider ṣyṣ (= Plate 2 X )
6 Same, syṣ/Same ПANOPMOL (= Plate 2 Y)
7 Bearded head (Poseidon (?) / Wheel ṣys

AR $0,6 \mathrm{I} \mathrm{g}$ (BM)
AR 0,62 g (BMC 2)
AR 0,73 g (BMC I)
AR 0,75 g (Hunter 2)
AR $0,33 \mathrm{~g}$ (Berlin)

8 Female head r., swastika / River god protome, shell ṣy ṣ
9 Dolphin and shell, five pellets / Eagle on hare ṣ s s
io Female (?) head in elephant scalp / Swan on waves, letter $\Pi$ (?) (Panormos?)
II Athena head, corn grain / Swan on waves ṣ ys
12 Young male head, swastika / River god šb'lṣys (see p. 38 above)
I3 Young male head (with horn?) / River god protome ṣ ys
14 Young male head / River god ṣys
Is Young male head with wreath / River god walking s y ṣ
I6 Female head / River god, shell in ex. sys
17 Female head, long-haired / River god ṣy
I8 Cock ṣyṣ/Pellets
i9 Free horse / River god protome ṣys
20 Female head with wreath / Free horse, Helios above
21 Hera head / River god, Helios above, ṣy ṣ in ex.

22 Apollo head / Pegasos ṣy ṣ
Eryx
23 Dog with corn ears IRVKAZIB / Female head
24 Male head / River god 'rk
25 Pegasos 'rk/Athena head

AR $0,63 \mathrm{~g}$ (BMC 23)
AR $0,80 \mathrm{~g}$ (Berlin)
AR $0,76 \mathrm{~g}$ (SNG Copenhagen 172
«Camarina»)
AR 0,66 g (Berlin)
AR 0,49 g (BMC 3I)

AR 0,67 g (BMC 24)
AR 0,54 g (BMC 27)
AR 0,69 g (BMC 26)
AR $1,67 \mathrm{~g}$ (BM)
AR 1,75 g (Paris, Luynes 1088)
AE (Priv. coll.)
AE (Priv. coll.)
AE 9,77-7,99 g (BM)
AE (Priv. coll.)
(BMC 38, of this type, is overstruck on specimen of no. 20)
AE (Priv. coll.)

AR 8,68 g (BM)
AR (Coll. Mini)
AR 7,99 g (Oxford, SNG 1718)

Addenda to small coins of Motya:
a) Eagle standing / Three dolphins in circle, within which small fish and letter mem (G. Ugdulena, Monete Punico-sicule, Palermo 1857, tav. II. II: cited from AR litra collezione Eleanora, Calatafimi)
b) Female riding on bull / Poseidon (?) seated 1., traces of legend AR litra (Berlin: classed under Motya)

Plate I Motya
I Berlin
2 Syracuse
3 Berlin
4 Paris
5 Paris
6 London
7 Hirsch 32
8 Private collection Y
9 Woodward
io Palermo
I I Berlin
12 London
I3 Berlin
14 Egger
Z I Berlin

Plate 2 Z I Private collection Y
Is Berlin
I6 Copenhagen
17 Egger
Z I Imhoof-Blumer NZ 1887
Z 2 Oxford
Z 3 Paris
A Berlin
B Paris
Z I (x 2) Private collection Y
X London
Y Hunter

Plate 3 I8 Copenhagen
I9 Copenhagen
20 Jameson
21 London
22 London
23 Cambridge
24 Nav. 12
25 Pennisi
26 London
27 MMAG 43
28 Cambridge
29 London
30 London

Plate 43 London
32 Egger
33 Berlin
34 Hirsch 33

35 SC 1907
36 Hamb. 98

Segesta
A London SNG II II84
B London BMC 37
C London BMC 4I
D London BMC 39
E London BMC 38
F London SNG II II96

Plate 5 Motya
37 Palermo
38 Paris
39 London
40 Ward
4 I London
42 Berlin
43 London
44 SC 1907
45 Hirsch
46 AC I4
47 London
48 London
49 London
50 Private collection Y

Plate 6 Panormos
A Palermo
Z 2 Oxford
I Private collection Y
2 MMAG 43
3 London
4 London
5 London
6 MMAG 43
7 Palermo
8 Oxford
9 London
Io London
II Hirsch 32
12 London
I3 Vienna

Plate 7 Panormos tetradrachms
I Nav. 4
2 Bordonaro
3 Private collection Y


4 MMAG 43
5 Paris
6 London
7 Cambridge
8 Jameson
Nav. 4
London

Plate 8 II Nav. 4
12 Hess-Leu 1966
I3 London
14 Private collection Y
I5 Pennisi
I6 London
17 Syracuse
I8 Nav. 4
I9 Paris
I9 Nav. Io
20 Ward
2 I London

22 Hirsch 32
23 London
24 Berlin
25 Palermo
25 Egger
26 Brussels
27 Paris
28 London
29 Oxford
29 Hess-Leu I964
30 London
30 Naples

31 Brussels
Brussels
London
34 Jameson
35 Hague
35 AC 16
36 Woodward
37 London
38 Munich
39 London
40 Copenhagen
4I Egger

Plate II 42 Berlin
43 Hague
44 London

```
    4 5 ~ P a r i s
    46 London
    47 Cambridge
    4 8 \text { London}
    4 9 ~ L o n d o n ~
    50 London
    50 Leu
    5I Salton
Plate I2 52 AC I6
    5 2 ~ L o n d o n
    5 3 ~ A N S
    5 4 ~ L o n d o n
    55 Private collection Y
    5 6 ~ S y r a c u s e
    57 SC I927
    58 London
    5 9 ~ B e r l i n ~
    60 London
    6I Boston
Plate I3 62 Oxford
    6 3 ~ B e r l i n ~
    63 London
    6 4 ~ B e r l i n ~
    65 London
    6 6 ~ L o n d o n ~
    67 Leu Sicilia
    6 8 \text { Jameson}
    6 9 ~ B r u s s e l s ~
    7 0 ~ B o s t o n ~
    7 1 ~ L o n d o n ~
    72 London
Plate I4 73 London
    7 4 ~ L o n d o n
    7 5 ~ P a r i s
    76 Cambridge
    7 7 \text { London}
    7 8 ~ B o s t o n
    7 9 ~ P a r i s
    80 London
    8r Cambridge
    82 Berlin
    83 Brussels
Plate I5 Rssmlqrt
    I London
    2 Lockett
    3 Leu
    4 Uncertain
```

|  | 5 | Boston |
| :---: | :---: | :---: |
|  | 6 | ANS |
|  | 7 | London |
|  | 8 | Sambon 1906 |
|  | 9 | Lockett |
|  | 10 | Cambridge |
| Plate 16 | II | Hirsch 19 |
|  | 12 | London |
|  | 13 | London |
|  | 14 | AC 14 |
|  | 15 | Paris |
|  | 16 | Pennisi |
|  | 17 | London |
|  | 18 | London |
|  | 19 | London |
|  | 20 | Private collection Y |
|  | 21 | London |
|  | 22 | Cambridge |
| Plate 17 | 23 | London |
|  | 24 | AC 16 |
|  | 25 | Stiavelli |
|  | 26 | ANS |
|  | 27 | London |
|  | 28 | London |
|  | 29 | London |
|  | 30 | Nav. 6 |
|  | 31 | London |
|  | 32 | London |
|  | 33 | Hirsch 16 |
|  | 34 | Nav. 10 |
| Plate 18 | 35 | Hague |
|  | 36 | Hirsch 33 |
|  | 37 | Brussels |
|  | 38 | ANS |
|  | 39 | London |
|  | 40 | Hirsch 14 |
|  | 4 I | London |
|  | 42 | London |
|  | 43 | Lockett |
|  | 44 | Paris |
|  | 45 | Bompois |
|  | 46 | London |
| Plate 19 | 47 | Glasgow |
|  | 48 | Nav. 5 |
|  | 49 | London |
|  | 50 | Hess-Leu |
|  | 51 | Leu |



## PLATE 2

8
8

aa


7
8

7

## 8


$Z 2$

9

$Z_{3}$

bb

9

cC


8
9

8

aa
bb



X


Motya I
Panormos (Z i-Z 3, X, Y)
Segesta (A, B)



Motya II
Segesta (A-F)

PLATE 5


37


I

2


2
$2^{\prime}$


39


3

2'


40


4

5


4
6


46


8


5

## 6



47


9

4


43


6

I


48


I
Motya III

PLATE 6


I

$I$


I

2


5


5

I


2


2

2


6


6


3


3

2


7


7

I


4

2


8


8


2"


IO


9

$R_{3}(\times 2)$
Panormos

PLATE 8

3


IO

4


15


13

4'


19


I7

3


II

4

${ }_{16}$


I4

4’


19


17


13


I 2

4'


17


I 5

4'


20


I8

3


14


13

4'


16

4'

$2 I$


19

PLATE 9

5'


24


2I'

7


27


23

7


30


26

6


25


22

7


28


24

7


30


26

PLATE Io
$7 \quad 8$


27


35


30

IO


38



27

9


35


30
$10^{\prime}$


39


33

8


28


36


30

II


34

PLATE II


PLATE 12

I4


4I

I 5


44

I 4


52


4I

15


56


45

I5


53


42
i6


57


46

15


54


43

16'


58


47

16'


59


48

16'


60


49

16'

$6 I$


49'

Panormos

PLATE 13


PLATE 14


PLATE 15



PLATE 17


PLATE 18


35


26

14


39


30
16


43



36


27

14


3 I
${ }^{1} 6$


34


37


28

15

$4 I$


32
16


45


31

I4


38


29


42


32
${ }_{1} 6$


46


35

Ršmlqıt




62


45


63


48

2 I


64


49



## Ršmlqrt

Lilybaion (A, B)
Kephaloidion (C)

PLATE 22

I


I


I

2


4


4


7


6

I


I


I

2


4


4

2


2

3


5


5


A


Thermai (I-7, A-C, Solus ? (XI)



Panormos (I-22), Eryx (23-25)


[^0]:    * Veröffentlicht mit Unterstützung des Schweizerischen Nationalfonds zur Förderung der wissenschaftlichen Forschung. / Publié avec l'aide du Fonds National Suisse de la Recherche scientifique.

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[^1]:    2 Unless some earlier coins of Segestan type, without legend, represent a previous Motyan coinage, as suggested by E. S. G. Robinson in SNG II II3I-2. The plant may perhaps be no more than a die-break?
    ${ }^{3}$ On this adjustment of Syracusan chronology, cf. Jenkins, Gela, pp. 66 ff .
    4 Zur Münzkunde Großgriechenlands, $N Z$ 18, i886, pp. 205-286.

[^2]:    5 A. H. Lloyd, NC 1925, 129 ff.

[^3]:    ${ }^{6}$ Cf. also SNG II 1183 - «perhaps Eryx or Motya» -; this should be Eryx, as the obv. die seems to be basically that of Rizzo lxiv 9 with some alterations especially of the corn ears.

    7 La monetazione arcaica di Himera, Annali, 16-17 suppl. (Rome 1971), pp. 34 ff .

[^4]:    8 Cf. Holm, Geschichte Siziliens III, Beschreibung der Tafeln, p. 18 ff.
    ${ }^{9}$ Cf. e.g. SNG II 934, 935, 94I: and an Eryx litra (in BM) with the types of Selinus, SNG II 1218.

    10 A. M. Honeyman, AJPbil 1947, p. 8 I ff.; approved by Sola Solè, Sefarad 1967, p. 27; but cf. also H. D. McEwen, NC 1925, pp. 393-4.

    - The equation between ṣys and the -zib termination of some Segestan legends, which has sometimes been suggested, was accepted by R. Arena in Archivo Glottologico Italiano xliv, 1959, 17 ff., esp. 25 ff., but firmly rejected by U. Schmoll, Kokalos 7, 1961, 7 Iff. and X. Durante, do. 86 ff.
    - It hardly needs to be added that in accepting ṣy as the ancient name of Palermo one is under no compulsion whatever to see any connexion with the medieval palace of La Ziza in that city.

[^5]:    11 E.g. Tarsus, BMC Lycaonia, etc., p. 167, no. 32; Gaziura, BMC Galatia, etc., p. 29, no. I; Gades, Vives La Moneda Hispanica, pl. IX, I3; Sexsi, ibid. pl. LXXXIII, 2 ff.; Lix, SNG (Copenhagen), part 42, no. 692; Tingis, ibid., no. 720.

[^6]:    12 Lederer, Segesta, pp. 14-15. Segesta was the ally of Carthage then and remained loyal to Carthage at the time of Dionysios' expeditions in $397-396$ B.C. It seems merely an assumption that Segesta lost her autonomy in 409.

    13 Rizzo, p. 287, fig. 90.

[^7]:    14 La monetazione arcaica di Himera, Annali, $16-17$ suppl. (Rome 197I) pp. 34 ff .

[^8]:    15 Kraay, nos. I-2 $=$ my nos. 1-2; Kraay, nos. 3-9 $=$ my nos. 4-10.
    16 L. Naville, Monnaies d'or de la Cyrénaique, nos. 69-76. - The resemblance may perhaps go further, if it is conceivable that the new Panormos coin (no.3) might be intended to represent Baal Hammon, who may, in turn, have been to some extent assimilated with Ammon (on which cf. Gsell, Histoire ancienne de l'Afrique du Nord, IV, pp. 28 i f.).

    17 Gabrici, Monetazione del bronzo, tav. VIII, 13 (II-Ic B.C.?).

[^9]:    18 Contessa hoard, NSc, 1888, pp. 302 ff. - Vito Superiore hoard, G. Procopio, Rendiconti dell'Academia di Archaeologia, Lettere e Belle Arti di Napoli 27, 1953, 3 ff.

[^10]:    19 Another hoard, from Termini Imerese (Noe 1092, NSc 1900, 205 f.) contained specimens which appear to have been of my group nos. II-21 and nos. 27-34; but as the burial was much later, probably c. 320 B.C., it gives no useful indications.

[^11]:    20 Kokalos 4, 1958, p. 105.
    ${ }^{21}$ The only hoard specimens which I can trace are those from the Mineo hoard (Noe 697, NSc 1905, 438 f .); by the reference there given to Hill, Sicily pl. X, Ir, the coins should be my no. 66 but the hoard is not indicative for the date as the burial must be of the early third century B.C.

    22 Perhaps at about this same time should be placed the late Syracuse tetradrachm of the Euainetos style (Tudeer 106) together with the very similar coin of Morgantina (Rizzo lx, 6); on the latter, the pellet is transferred to between the dolphins in the same way as on the sys coins no. 63, 69 .

[^12]:    23 After a photo which the late Barone Agostino Pennisi gave me some years ago. Unfortunately I do not have any note of the weight. As reproduced here the photo is about twice natural size.

[^13]:    ${ }^{24}$ NSc 1958 and Annali 5/6, pp. 296 ff.
    ${ }^{25}$ On Herakles at Selinus, cf. L. Lacroix, Monnaies et colonisation, pp. 34 ff .
    ${ }^{26}$ A. di Vita, Archaeologia Classica V, pp. 39-47.
    27 Annali 5/6, pp. 306 ff.

[^14]:    ${ }^{28}$ S. Moscati, World of the Phoenicians (London 1968), pp. 104-105 and references on pp. 259260.
    G. Cavallaro, Panormos pre-romana (Palermo 1950), p. IO9ff., however, equates qrthdšt with Panormos; if we accept the syṣ coin series for Panormos, as I do, then this must surely exclude the possibility suggested by Cavallaro.

[^15]:    ${ }^{29}$ A specimen of no. 8 comes from the Mineo hoard (Noe ${ }^{2}$ 697) whose burial date however should be early in the third century B.C., so that this is not indicative for the early part of the series.

[^16]:    ${ }^{30}$ ANS Centennial Publication, pp. 372-374.
    ${ }^{31}$ The same or similar fish on the coins of Akragas (Rizzo i, 16) has been discussed by the late Prof. F. E. Zeuner in Numismatic Circular 1963, pp. 142-143, concluding that it is probably a species of the giant sea-perch known as the mero.

[^17]:    ${ }^{33}$ On hoards of the time of Agathokles, cf. Essays Robinson, p. 15 I.
    ${ }^{33 a}$ A. Di Vita, Annali 5/6, 1958/59, 125 ff.
    ${ }^{34}$ Noe ${ }^{2}$ 946, NSc 1877, also Kokalos VII, tav. $20,2$.
    ${ }^{35}$ Noe ${ }^{2} 193$.

[^18]:    ${ }^{36}$ Cf. SNG II 1476-1480.

[^19]:    ${ }^{37}$ For the earlier coinage of Himera-Thermai, cf. SNG II (Lloyd) 1025, 1038, both of which Robinson suggests may be after 409 . Connected with these, there seem to be a further series of bronzes in which the types of a boar, a standing nymph and a standing Herakles recur; e.g. Gabrici, tav. X, 42, 43, 45 . Another small bronze piece probably belonging to this context has obverse female head r ., legend I M; reverse standing Herakles (in BM, I,I6 g, apparently unpublished). Cf. also ImhoofBlumer I886, taf. VI, 7, 8.

    In his unpublished notes Dr. Robinson has suggested that the charioteer on the Thermai tetradrachm no. I, who wears a Phrygian helmet, may be Pelops, whose earlier appearance at the mint of Himera is known from SNG II roi6, e.g.
    ${ }^{38} \mathrm{~A}$ specimen of the Thermai issue was evidently also present in the hoard from Termini Imerese of 1900 (Noe ${ }^{2}$ 1092, $N S C$ 1900, p. 205 ff .); but even if it were determinable which variety this was, it would not be indicative for the dating since the Termini hoard should, from such data as are available, probably have been buried during the last quarter of the fourth century; the «Carthage» type with the Horse's head reverse was represented in it.

[^20]:    ${ }^{39}$ Close parallels are few; but cf. Argos (Kraay-Hirmer 518) of $370-350$ B.C., and perhaps the facing Hera of Kroton, also of the middle fourth century (PCG III, C 2).

    40 Jameson 619; Paris Luynes 984; Weber 1364 (now BM).
    ${ }^{41}$ ZfN 1935, pl. IX, 3; the date of this Morgantina tetradachm, as of the very similar Syracuse Tudeer 106, are among the most difficult to define, but I would think that there is little reason to put them very early in the fourth century. The Syracuse is an adaptation from the latest class of Euainetos decadrachms, and the thick exergual line with the ethnic below it are more in line with the practice of Agathokles' time; the thick exergual line also occures in a late phase of the sys series (nos. 62, etc.).

